FULL COLOUR THROUGHOUT

MIDDLE EAST@WAR No.45

• REVISED EDITION •

SYRIAN CONFLAGRATION

THE SYRIAN CIVIL WAR, 2011–2013

Tom Cooper

MIDDLE EAST @ WAR SERIES

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Cover Photograph: A formation of loyalist T-62s and T-72s advancing to provide support for Hezbollah units in the Qusayr area in early June 2013. Following this battle, less and less of the former Syrian Arab Army (SAA) was to be seen on the battlefields of Syria. (via M.P.)

Cover Profile: A reconstruction of a MiG-23MF (serial number 2618) as seen and photographed over Aleppo and Idlib provinces on several occasions during late 2013. Painted in the same orange-sand and blue-green colours as all SyAAF MiG-21s, it is illustrated with the fin flash as applied very often on Syrian combat aircraft in a rather crude fashion – and as armed with the Kh-23M (ASCC/NATO codename 'AS-7 Kerry') guided air-to-ground missile. Two such weapons were deployed to destroy the HQ of the Tawhid Brigade in northern Aleppo in late 2013, killing most of its staff and leading to the collapse of the original insurgency in this part of the country. (Artwork by Tom Cooper)

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ABBREVIATIONS

4WD	Four-wheel drive
AK	*Automat Kalashnikova*; general designation for a class of Soviet- or Eastern-bloc manufactured 7.62mm and 5.45mm assault rifles
An	Antonov (the design bureau led by Oleg Antonov)
APC	Armoured Personnel Carrier
ATGM	anti-tank guided missile
CO	Commanding Officer
COIN	counterinsurgency
ELINT	Electronic intelligence
ERA	Explosive Reactive Armour, small blocks of explosive attached to the outside of armoured vehicles designed to deflect the effects of High Explosive Anti-Tank weapons such as RPGs or ATGMs.
HQ	headquarters
IAP	International Airport
IFV	Infantry fighting vehicle
IR	Infrared, electromagnetic radiation sensed as heat
Il	Ilyushin (the design bureau led by Sergey Vladimirovich Ilyushin, also known as OKB-39)
KIA	killed in action
Km	kilometre
MANPADS	man-portable air defence system(s) – light surface-to-air missile system that can be carried and deployed in combat by a single soldier
MBT	Main Battle Tank
MHz	Megahertz, millions of cycles per second
Mi	Mil (Soviet/Russian helicopter designer and manufacturer)
MiG	Mikoyan i Gurevich (the design bureau led by Artyom Ivanovich Mikoyan and Mikhail Iosifovich Gurevich, also known as OKB-155 or MMZ' "Zenit")
NCO	Non-commissioned officer
RPG	Rocket Propelled Grenade
SA-7 Grail	ASCC codename for 9K32 Strela-2, Soviet MANPADS
SAM	surface-to-air missile
SIGINT	signals intelligence
Su	Sukhoi (the design bureau led by Pavel Ossipowich Sukhoi, also known as OKB-51)
SyAAF	Syrian Arab Air Forces
Technical	improvised fighting vehicle (typically an open-backed civilian 4WD modified to a gun truck)
USSR	Union of Soviet Socialist Republics (or 'Soviet Union')

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BACKGROUND

I have travelled extensively around Syria and have maintained relationships with many Syrians since my youth. Of those not killed in the meantime, some of them have been imprisoned since the mid-2000s; others joined the insurgency, and a few have fought on the government side. Through my research into various air forces in the Middle East over the last decade I have come into the unusual position of also being in contact with a significant number of people from other countries and military services that have become involved in the Syrian Civil War. Even so, it is hard to convey the impact of what was originally known as the 'Syrian Uprising' and evolved into a full-blown Syrian Civil War.

Erupting as a conventional popular uprising against an oppressive government, this conflict is much more than what is often seen as a clash between a 'despotic but laicist government and Islamic extremism'. In fact, this war gradually developed into a major clash waged by a dictatorship of some of the Syrian Alawite minority – strongly supported by the government of the Islamic Republic of Iran (IRI) and various of its proxies, including Hezbollah (also 'Hizbullah' or 'Hizballah'; a Shi'a political party and militant group from Lebanon), and Russia – against a conglomerate of native insurgent groups supported by a host of foreign powers (primarily Arab countries of the Persian Gulf) on the other. Although already destroying large parts of major Syrian cities, dozens of towns and hundreds of villages; although bitterly dividing not only the Syrian population but much of the Middle East and beyond too; and although sending millions of people into ruinous exile while bringing some of the worst scenes in recent history to the surface, this merciless, savage and ugly conflict is still going on.

The exact cost in lives remains unknown. At the time of writing, various 'non-government organisations' (NGOs) estimate the number of deaths caused by illness and malnutrition at around 200,000, while another 140,000 may have been killed in fighting. Less than half of the confirmed deaths have been combatants from both sides: civilians have suffered so much that nearly 8 million Syrians become displaced, of which about 2 million fled to neighbouring countries. At least as tragic are estimates of the number of persons missing or assumed as detained – primarily by the government – variously reported at between 60,000 and 130,000. Beyond these tragic figures, it is impossible to reasonably assess the economic and material damage to the country, except to conclude that Syria is ruined and unlikely to recover as a sovereign and functioning country for decades to come.

Although often languishing on the brink of reporting by mass media, the Syrian Civil War is also one of the most publicised conflicts in the history of humankind. Due to the widespread availability of the internet and social media, observers are in the position of being able to follow the events almost as if peeking over the shoulder of many of the involved combatants. However, it is also one of the most politicised conflicts ever, and a war characterised by the unprecedented spread of misinformation and propaganda.

The following account is an attempt to dissect military-related developments and combat operations in Syria in the period between early 2011 and late 2013 from 'ambient sounds', and to record and summarise what became known about the war itself. Although some descriptions of geopolitical circumstances are provided, these are kept to an absolute minimum, and primarily used to explain the background to certain developments. Furthermore, I have purposedly avoided discussing possible Western military interventions and involvement and entering in-depth discussion about the deployment of chemical weapons by forces loyal to the Syrian government. While Western intervention did not happen during the period covered by this book, the deployment of chemical weapons remains mired in much controversy and was primarily used to hit civilians in insurgent-held areas, in turn having next to no effect upon developments on the battlefield.

That said, I would like to stress that my reporting about this conflict is not only certain to contain mistakes, which are all mine, but is also biased. I find there is no doubt about causes for this war; no doubt about who turned it into an inter-ethnic and inter-religious strife; and even less doubt about who has prolonged the bloodshed and agony and turned large parts of beautiful Syria into a wasteland through internationalising this conflict.

SYRIA THROUGH THE CENTURIES

Positioned in the centre of the Fertile Crescent and the Middle East, on the vital crossroads between Africa, Asia and Europe, the area nowadays within Syrian borders experienced some of the earliest human inhabitation, and the emergence of several of the earliest civilisations. The oldest remains found in Syria date from the Palaeolithic era, approximately 800,000 BC. Remains of Neanderthals who lived there in the Middle Palaeolithic era (ca. 200,000 to 40,000 years ago) were found, as were the ruins of numerous early cities from late Neolithic and Bronze Age. There is an ongoing debate over whether the Phoenician or Ugaritic alphabet – the latter named

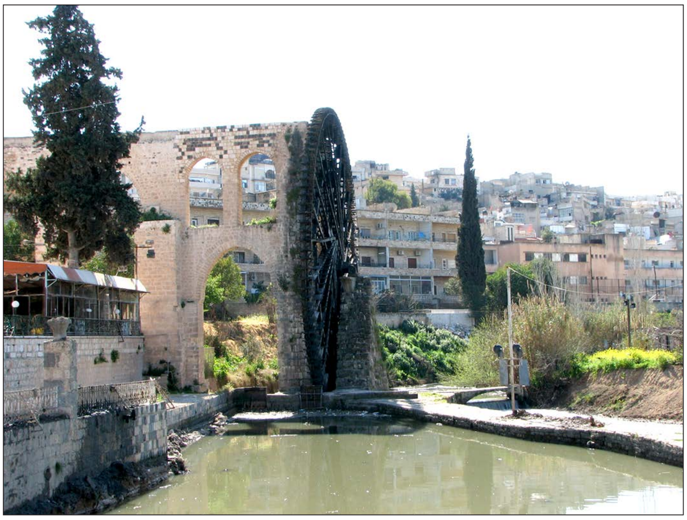
The entrance to the ruins of Ugarit, a Neolithic town that maintained trade connections to Cyprus, Egypt, and the valleys of the Euphrates and Tigris rivers. (Photo by Tom Cooper)

The Great Colonnade in the ruins of Apamea, once a prosperous Roman town in the Orontes River Valley, about 55km north-west of Hama. (Photo by Tom Cooper)

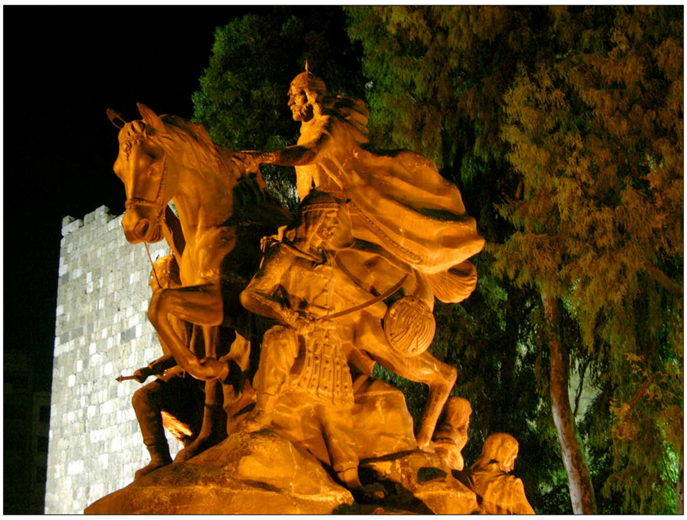
The Roman amphitheatre in Bosra (also known as Busra ash-Sham), a UNESCO World Heritage Site. (Photo by Tom Cooper)

A view of the ruins in Palmyra, once a powerful Arabic city in central Syria, near modern-day Tadmor. (Photo by Tom Cooper)

after the ancient port city of Ugarit, 11 kilometres north of the modern port city of Lattakia – was the first ever, while Damascus, capital of Syria, is one of the oldest sites of permanent human inhabitation. Ugarit was a part of an empire that may have stretched from Anatolia in modern-day Turkey, east to Mesopotamia and south to the Red Sea, around 3,000 BC, and that traded with the Mesopotamian states of Sumer Akkad and Assyria, and with Egypt. Subsequently, various parts of this area were successively occupied by the Sumerians, Egyptians, Hittites, Assyrians and Babylonians, by Canaanites and Phoenicians, by Arameans and Amorites, by the Neo-Assyrian Empire and then by the Persians in 539 BC. Alexander the Great ended the Persian dominance



One of 17 *norias*, ancient waterwheels used for irrigation purposes in the Hama area since Roman times. (Photo by Fabian Hinz)



Statue of Saladin, (Kurdish) Ayyubid Sultan, at the western entrance to the Citadel of Damascus. (Photo by Fabian Hinz)

The Crusades have left a lasting impression in the landscape of Syria. Fortresses like the famous Krak de Chevaliers (formerly the Crac de l'Ospital), one of the most important preserved medieval castles in the world, were constructed every 20–40 kilometres along the Anti-Lebanon Mountains. (Photo by Tom Cooper)

in 333–332 BC and subsequently the area was incorporated into the Seleucid Empire, the capital of which was in Antioch, nowadays inside Turkey. The Roman general Pompey the Great captured Antioch in 64 BC, turning Syria into a Roman Province. During the times of the Roman Empire, Antioch became a major centre of trade and industry, and the third biggest city, right after Rome and Alexandria – despite a brief contest with the powerful indigenous Aramean state, centred around Palmyra, in the second and third centuries AD.

The area became part of the East Roman, or Byzantine, Empire in 395, but was conquered by the Muslim Arabs of the Rashidun Army – led by Khalid Ibn al-Wallid – between 634 and 640, to become a part of the Islamic Empire. The Umayyad dynasty – which expanded this empire from Spain to India – placed its capital in Damascus, and Syria prospered immensely. Christians, mostly ethnic Arameans, present in the area since Paul the Apostle was converted on the Road to Damascus, were completely equal to Moslems and held important governmental posts. Indeed, Greek and Aramaic languages remained dominant even after Umayyads made Arabic the official language. The Caliphate collapsed over dynastic struggles and religious disputes in the eighth century, and the Abbasid dynasty then moved the capital of empire to Baghdad. The Byzantines returned to re-capture most of the area in the tenth century, but Syria then experienced a period of great turmoil, becoming a battleground between the Byzantine Empire, the Damascus-based Fatimid dynasty, the Buyids of Baghdad, the Seljuk Turks, and the Crusaders, which arrived in the late eleventh century and committed countless atrocities against the local population before establishing several of their own states. A few of the Crusader states survived the conquests by Saladin (Sallahaddin), the founder of the Ayyubid dynasty of Egypt, until in 1260 the Mongols briefly swept through Syria. The withdrawal of the Mongols was followed by invasion by the Mamluks of Egypt. Mamluk Sultan Baibars destroyed the last of the Crusader footholds and made Damascus a provincial capital, but this period of reconstruction experienced a tragic end during invasion of the Tamerlanes led by Timur Lenk in 1400, which massacred much of the population and deported most of the survivors to Samarkand. By 1516, when Syria was conquered by the Ottoman Empire, the area also lost importance due to the discovery of a sea route from Europe to the Fast East, and for a while degenerated to a transit point on the route to Mecca.

Under Ottoman administration Syria was reorganised into one large province – or eyelet – consisting of several districts (sanjaks) in which each religious minority had their own religious heads and was administered by their own laws and certain civil functions. A peaceful coexistence among now very different sections of local society was fostered over the following 400 years, and Eyelet Syria – which included modern-day Syria, Lebanon, Israel/Palestine, Jordan, and sizeable parts of Iraq and Turkey – experienced significant economic growth towards the end of the nineteenth century.

THE KINGDOM OF SYRIA AND FRENCH OCCUPATION

Much of what is going on in Syria today was pre-determined by the turbulent history of the Middle East since the late nineteenth century. A series of local uprisings against Ottoman rule resulted in the development of a sense of loyalty to the Arab history within intellectual circles of Syria and Lebanon of that time. A number of emerging Arab nationalist organisations of different political- and religious orientation surfaced that became influential because of their demands for social and political reforms, independence from the Ottoman Empire and unity for all Arab territories. Although some leading figures from these organisations, as well as traditional leaders from other parts of the Arab world eventually gained some influence in Istanbul, dissent continued to grow. During the First World War, Arabs established ties to the British, who made promises of independence in return for an Arab uprising against the Ottomans. Correspondingly, Faysal Ibn Hussein, son of Sharif Hussein Ibn Ali of Mecca, then the ruler of Hejaz (now the 'Western Province' of Saudi Arabia), launched the Arab Revolt in 1916, best known to the Western reader for the involvement of British Army officer Thomas E Lawrence ('Lawrence of Arabia'). After a two-year-long campaign, Faysal's insurgent forces followed the Egyptian Expeditionary Forces (primarily consisting of units from various parts of the British Commonwealth) led by General Edmund Allenby into Damascus in late September 1918.

However, at the same time the government in London was making promises to Sharif Hussein, it reached separate agreements with the French – including the Sykes-Picot Agreement – aiming to distribute the Ottoman Empire between them. Therefore, while the Arabs subsequently declared an independent Kingdom of Syria 'in its natural boundaries' – from the Taurus mountains in Turkey to the Sinai desert in Egypt, and including large parts of modern-day northern Iraq, most of modern-day Jordan and even some of modern-day Saudi Arabia, the French found this development completely unacceptable. Ignoring the findings of the US-sponsored King-Crane Commission (set up to determine the wishes of local inhabitants in 1919), and the official declaration of the Kingdom of Syria as the first modern and sovereign Arab state, on 8 March 1920, they landed troops in Lebanese ports and imposed an ultimatum upon Faysal – to fight or capitulate. While Faysal surrendered, his Minister of Defence, Yusuf al-Azma led a small army to confront the invasion, but was easily defeated at the Battle of Maysalun in July 1920. Following the siege and capture of Damascus, Paris imposed the French Mandate for Syria and the Lebanon on the 24th.[1] During the San Remo conference later that year, Syria was officially distributed to a part under French Mandate, including modern-day Syria and Lebanon, and Palestine, Transjordan and Iraq under British control.

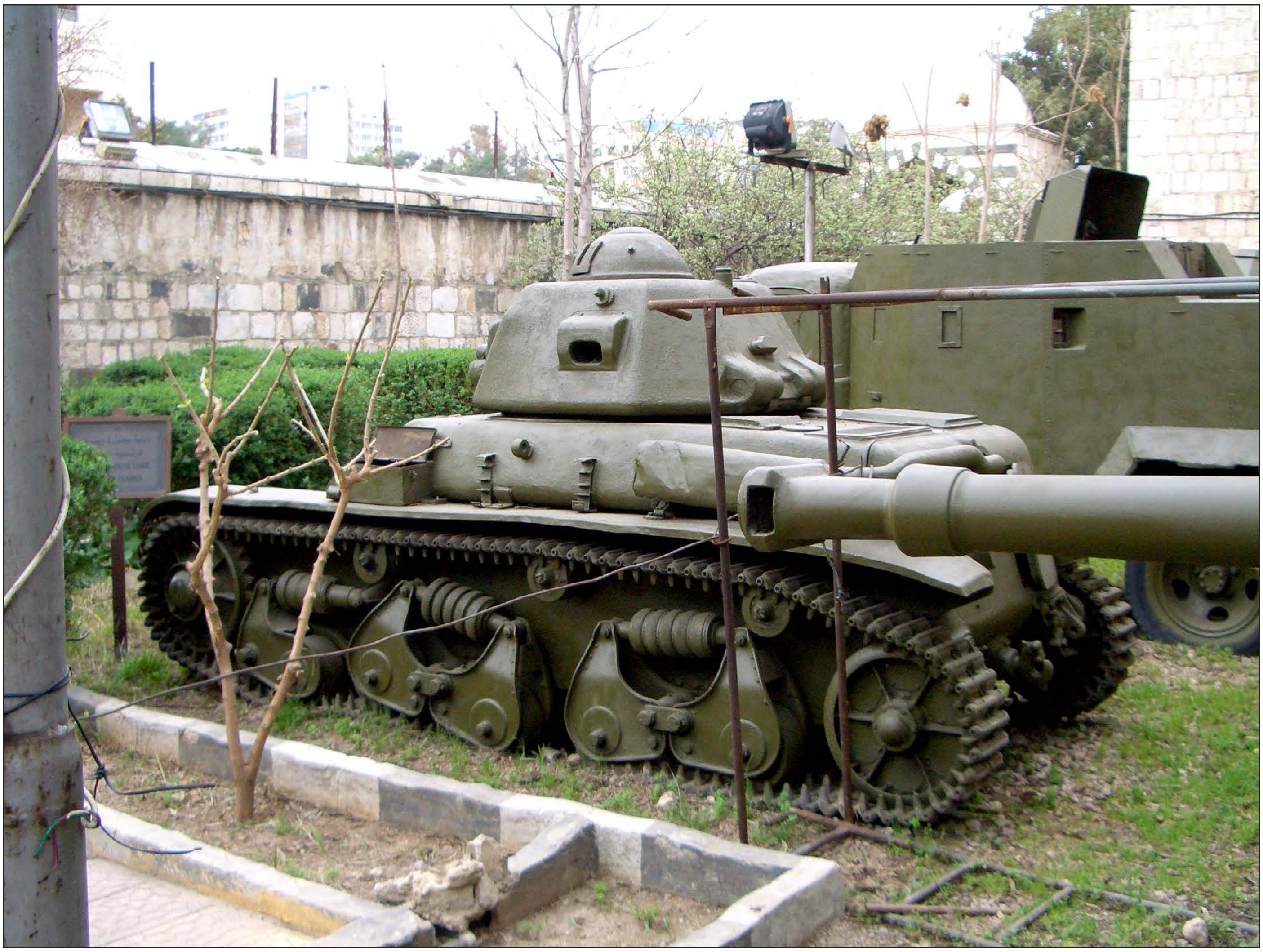
Ever since, the short-lived Kingdom of Syria – often belittled and disparaged as 'Dreams of Greater Syria' by Israel and the West – has been a subject of great inspiration to many Arabs, foremost as the story of them breaking out from colonial rule only to be betrayed and castigated by Western powers, and then the Jews. Unsurprisingly considering this and the harsh French rule, it took only a few years before Arabs under the Druze leader Sultan Pasha al-Atrash launched the Great Syrian Revolt in 1925. Early on, al-Atrash's forces – that included insurgents from many different ethnic and religious groups – won several battles. The French reacted by deploying large contingents of colonial troops to regain the main cities and defeat the Arabs during the battles of Msfirah and as-Suwayda, but the revolt was crushed only after a massive bombardment of Damascus in 1927, in which up to 40,000 Syrians were massacred. Al-Atrash was forced to escape into exile in Jordan. Sentenced to death in absentia, he was pardoned and returned to Syria in 1937 and remained involved in the politics into the early 1950s, becoming one of the most popular and prominent figures in Syrian history, next to Baibars, and certainly before Saladin.

Political unrest against the French rule continued into the 1930s, fostering the ascent of nationalist movements fuelled not only by demands for independence, but also the increasing Jewish immigration to Palestine under the British Mandate. Eventually, Paris was forced to offer independence to Syria in 1934, but the corresponding treaty was heavily prejudiced in French favour and fiercely opposed by nationalists led by Hashim al-Atassi (former Prime Minister of Faysal's government). Atassi completely renegotiated this agreement and two years later received a tumultuous welcome on return to Damascus, but popular elation over his success was short lived: lingering imperialist inclinations of the French government resulted in Paris reconsidering its promises and never ratifying the new agreement. On the contrary, the British and the Zionists added plenty of salt to Syrian wounds by provoking the Arab Revolt in Palestine, while the French put the dot on the i when practically ceding the province of Alexandretta to Turkey in 1938–1939, and through starting to set up an independent Lebanon. This reignited unrest and mass protests continued into 1941, when Syria was occupied by the British, followed by Free French forces, in reaction to Nazi encouragement to Arabs (as a counter to British hegemony), and Vichy French authorities granting permission for German aircraft and supplies to transit Syria on the way to Iraq.

Confronted with a Jewish insurgency that made the Mandate increasingly unpopular at home, the British government subsequently attempted a reestablishment of 'Greater Syria' (including Palestine). Despite severe pressure upon General Charles de Gaulle's administration from 1944 onwards – such efforts were prevented by a series of developments that included the Lebanese declaration of independence in 1943, and secret French cooperation with militant Zionist organisations. Even then, it took another French military intervention – including another heavy bombardment of Damascus and countless civilian deaths – and immense international pressure to force Paris to finally grant Syria independence, and withdraw its remaining troops on 17 April 1946, which was subsequently declared the Independence Day of the Arab Republic of Syria.

INDEPENDENT SYRIA

Though resulting in a short period of rapid economic development, independence brought no respite to the nascent Syria. It not only proved extremely difficult to govern because of its complex demography but also went through a number of traumatic experiences early on. Syrians never managed to re-



One of a few Renault R-35 light tanks left behind by the French, and pressed into service with the nascent Syrian Arab Army during the war in Palestine in 1948, seen in the former Military Museum of Damascus (closed in 2010). (Photo by Tom Cooper)

establish a union with Lebanon, negotiations for a union with Transjordan failed, and soon after they lost the last semblance of control over Palestine. Meanwhile, the civil war between Arabs and Jews in that territory culminated in an outright campaign of ethnic cleansing of Arabs in late 1947 and early 1948, and the declaration of an independent Israel in May 1948, which in turn provoked an invasion by several nations of the Arab League, including Syria. Following nearly a year of bitter fighting, the Arabs were pushed out and forced to accept a UN-negotiated ceasefire, which left Israel in control of nearly all of Palestine bar the Gaza Strip and the West Bank. Understood in Syria as being caused by incompetent government officials that resulted in a massive economic loss for the country, the defeat prompted a coup d'état against the democratic rule in Mach 1949, followed by two further coups by the end of that year. The military returned power to civilians following a series of additional coups and a popular uprising in 1954, but this pattern was to be repeated so often that by 1958 the country had been ruled by no fewer than 20 different governments and had four separate constitutions. This latent political instability and the appeal of President Gamal Abdel Nasser of Egypt's leadership in the wake of the Suez War of 1956, eventually resulted in popular support for a union with Egypt. Therefore, on 1 February 1958, Syrian President Shukri al-Kuwatli and Nasser announced the merger of the two countries, creating the United Arab Republic (UAR). Nasser's rule soon turned into a great disappointment for Syrians: while expected to be fair and share the power, and despite countless warnings from his aides, the Egyptian president ordered the disbandment of all political parties, positioned Egyptians in nearly all major positions in politics and the military, introduced Egyptian-style land reform and removed most industry and the military to Egypt. Unsurprisingly, such decisions and massive mismanagement of the local economy created much resentment, and an anti-Egyptian military coup ended the union in 1961. Left to their own devices again, successive Syrian governments attempted rapprochement with the West, in 1961–1963 and the country experienced a brief period of economic growth before another series of coups resulted in the establishment of the Ba'ath Party's rule and of friendly relations with the Soviet Union in 1964. Political unrest continued, nevertheless, because of continuous power struggles within the Ba'ath Party and the increasingly powerful groups within the minority Alawite sect, and was further exacerbated by the defeat during the June 1967 War with Israel, when Syria lost the prosperous Golan Heights (pronounced Jawlan in Syria).

THE RISE OF THE ALAWITES

The Alawites are a group frequently – yet erroneously – categorised as a 'Shi'a sect'. They diverged from the mainstream Twelver of the Imami branch of Shi'a Islam in the ninth century, but nowadays the only link between them and Shi'a Islam stems from their reverence for the Prophet Muhammad's cousin and son-in-law, Ali. Indeed, modern-day Alawites have many things

This Dodge Tanake was taken over from Free French forces and pressed into service with the SyAA in the late 1940s. (Photo by Tom Cooper)

Flags of various branches of the Syrian military: in the centre is the original SyAAF flag (with roundel as in use from 1948 until 1958), and to its right is the current SyAAF flag. (Photo by Tom Cooper)

in common with Christians and are as often shunned by the Sunnis and Shi'a alike. Because of their 'heresy' and rejection of Sharia Law, and celebration of many Christian holidays and the revering of Christian saints, the sect remained impoverished over the centuries and turned secretive. Furthermore, considering their history as a fractious bunch divided among rival tribes, many Alawites began embracing the Shi'a concept of taqqiya (concealing or assimilating one's faith to avoid persecution) while dealing with Sunnis.

The rise of the Alawites in Syria began during the French rule of the 1920s, when they were – together with other minorities – legitimised and supported by Mandate authorities as a counterweight to the Sunni majority. They not only enjoyed subsidies, legal rights and lower taxes than their Sunni counterparts, but were recruited into the military (the Troupes Speciale du Levant), police and intelligence services in an attempt to suppress Sunni challenges to French rule and create a quasi-state within the Mandate.

The Sunnis and even Christians quickly reasserted their political position and sidelined the Alawites from positions of civilian authority in the 1950s, but – while occupying the top posts in the armed forces – they overlooked the heavy presence of Alawites in the lower ranks.[2] The seed was thus planted not only for an Alawite-led military, but also for the rise of the Ba'ath Party (rapidly filled with Alawites), which campaigned for secularism, socialism, Arab nationalism – and Alawite migration into the cities. Following the coup of 1963, Ba'athist President Amin al-Hafiz discharged many ranking Sunni officers, providing openings for hundreds of Alawites to top-tier military positions. At the same time, heavy recruitment among Alawi communities further exacerbated the earlier trend, with some units becoming overwhelmingly staffed by this sect. Before long, the Alawites began making their claims to the Syrian state and Alawite Major General Salah Jadid imposed himself as the de-facto Syrian strongman, instead of the President of the Republic, but actually a ceremonial figurehead, Dr. Nureddin al-Atassi.

Together with militant Leninist Jadid, it was another top Alawite officer – the then Minister of Defence and Commander of the Syrian Arab Air Force (SyAAF), Major General Hafez al-Assad – that was blamed for the defeat during the June 1967 Arab-Israeli War. Narrowly surviving the crisis, Assad began consolidating his position in the military establishment and to differ with Jadid because of the latter's radical policies. Following a period of power struggle, Assad's moment came after the failed Syrian military intervention in the Jordanian Civil War of September 1970. Although subsequently stripped of his government post, he deployed the military in a bloodless coup that resulted in the arrest of leading members of the detested Jadid administration and

Ruins of Qunaitra, formerly the capital of Golan province, captured by Israel in the June 1967 War and deliberately and systematically demolished during the Israeli withdrawal in June 1974. (Photo by Tom Cooper)

all of Assad's internal enemies. On 16 November 1970, Hafez al-Assad declared himself as prime minister. After firmly establishing himself in power, three years later he institutionalised his position through declaring himself the President of the Arab Republic of Syria.

POPULATION AND GEOGRAPHY

The country that came under Assad's rule is usually considered as populated by 'Arabs'. Actually, its population – nowadays estimated at between 22.5 and 23.5 million – consists of a blend of people of very diverse ethnic and religious backgrounds. The volatility that generally accompanies sectarianism resulted in the government deliberately avoiding conducting censuses on religious demographics, making it difficult to determine the exact composition of religious majorities and minorities, which is why only rough estimates about this issue are available. Most of these assess the Syrian population as 70–75 percent Sunni Muslim (including Arabs and Kurds), up to 15 percent other Muslims (including Alawites, Ismailis, Shi'a and the Druze), about 10 percent Christian (Orthodox and Maronite), while other minorities include a few Jewish communities that were still present in Aleppo and Damascus as of 2010. Sunni Arabs make up roughly 60 percent of the population, together with Sunni Kurds (approximately 9 percent) and Sunni Turkomen (3 percent), and there are significant minorities of (Christian) Syriac-Aramaic people and Assyrians (up to about 2.5 million), Armenians (approximately 100,000), Indo-European Christians, Circassians, Yazidis, Greeks, Mandeans, Jews and others. Furthermore, about 400,000 Palestinian Arab refugees (many of them Christians) and at least 1,300,000 (some Syrian estimates went as high as 3 million during the mid-2000s) Iraqi refugees lived in Syria as of early 2011, although many of them are understood to have left the country since. The official language is Arabic, of which several dialects are spoken in everyday life, but many other languages are spoken among the minorities, and most educated Syrians also speak English, French and German, while Russian is spoken by most military officers.

The Syrian population is usually assessed as quite young, with more than 90 percent being younger than 60. The local culture is traditionalist, generally placing greatest importance upon family, education, religion, self-discipline, respect and the welcoming of guests. As well as many Arabs considering Syria as the cradle of their civilisation, Damascus is traditionally one of the most important Arab cultural centres, especially in the field of classic Arab music, while Aleppo is renowned for Andalous sung poetry. In recent years, Syrian soap operas were quite successful throughout the eastern Arab world.

Syrian geography and climate are as diverse as its population. Although large swaths of the country – especially the area between Homs, ar-Raqqah, Dayr az-Zawr and the border with Iraq – are sparsely populated, only about 55 percent of the total population lives in urban centres. Aleppo is the biggest city, usually assessed about 850,000. Sadly, much of this has changed since the start of the war.

The geography consists of the narrow, densely populated, humid and fertile coastal plain that stretches from the Turkish border to Lebanon. Rain in this area is fairly abundant, mostly falling between November and May. Towards the east, the coastal plain climbs into the Jabal an-Nusayriyah, a mountain range with an average elevation of around 1,200 metres extending parallel to the coastal plain. At the southern end of the Jabal an-Nusayriyah is the Homs Gap, a favourite trade and invasion route from the coast to the country's interior, but also a densely populated area with intensive agriculture that often receives rain-bearing clouds from the Mediterranean. East of the mountain range is the Orontes River Valley, a fertile and intensively cultivated area. Further south, the Anti-Lebanon Mountains rise to peaks of over 2,700 metres along the border with Lebanon, that have little rainfall and merge with the desert. At the southwest end of this mountain chain is Mount Jabal ash-Sheikh (Mount Hermon), on the southern slopes of which are the green and water-rich Golan Heights: since the June 1967 War occupied by Israel, and since 1981 annexed by it in an act that was never accepted by Syria, nor recognised by the international community.

At the junction of the Anti-Lebanon Mountains and the central plateau lies Damascus, the former oasis overlooked by Mount Kasyun. Although lying in the semiarid climatic zone of the steppe, it is verdant and cultivable because of irrigation from the Barada River (primarily due to aqueducts built during Roman times). East of the Golan and south of Damascus is the Hawran Plateau, characterised by volcanic cones that intersperse the otherwise open, rolling terrain, and further south-east is the high volcanic region of the Jabal

Illustrating the diverse landscape of Syria, this is a view from the Anti-Lebanon Mountains towards the east, showing 'Syria's granary', the Orontes River Valley north of Hama. Snow caps in these mountains melt away only in April and May. (Photo by Tom Cooper)

A view of north-western Damascus, with Mount Kasyun in the background. Largely constructed since independence, this part of the Syrian capital is the power base of the Assad government. Beyond Kasyoun, on the left side of this photo, is a complex of bases housing the Republican Guards Division, stretching for nearly 20 kilometres. (Photo by Tom Cooper)

as having a population of between 2 and 3 million; Damascus is populated by at least 1.7 million, possibly up to 6 million including suburbs and the surrounding Rif Dimashq Province; Homs used to have a population of about 1.3 million, and Hama ad-Druze (now renamed Jabal al-Arab). However, most of the country consists of the eastern plateau, a region of hard-packed, dirt surface intersected by a low chain of mountains that extend north-eastwards to the Euphrates. South of the mountains is the barren gravel desert region known as Hamad, while north of it is the Homs Desert. North-eastern Syria is characterised by its dependence on the Euphrates River (which provides more than 80 percent of the water resources for the entire country), the banks of which are densely populated and intensively cultivated.

A COUP-PROOF GOVERNMENT

Hafez al-Assad ruled such a complex country through extremely careful integration of the Alawites into the military and security apparatus and the integration of the military into the government. He vastly expanded the internal security services and established a powerful network of informants all through Syrian society, eventually creating several paramilitary organisations, the primary purpose of which was to secure his rule – such as the Defence Companies (Saraya ad-Difa, SAD), commanded by Hafez's brother Rifa'at al-Assad. In the process of this reform, and although a staunch anti-communist, Assad signed a friendship treaty with Moscow and granted a limited influx of Soviet instructors in exchange for vast quantities of modern arms. His war for liberation of the Golan Heights, launched in October 1973 in cooperation with Egypt, was not successful, but during subsequent ceasefire negotiations he did manage to force the Israelis to limited concessions. They withdrew from a narrow strip on the eastern side of the Golan Heights to Syria, albeit not before completely demolishing the former administrational, commercial and tourism centre of the area, the town of Qunaitra.

Although Hafez al-Assad's dogged secularism won the backing of religious minorities, the combination of accusations about the Ba'ath Party's betrayal in the June 1967 War, the lack of success during the October 1973 War, and Assad's removal of a clause from the Syrian constitution according to which the president had to be a Moslem, put him at odds with Syrian Sunnis. Some of these were organised into the Syrian Moslem Brotherhood – which has existed in Syria since the late 1930s and represented an influential political party in the 1950s – the military wing of which decided to launch an insurgency in the late 1970s, amid many quarrels with the rest of this organisation and other Sunni movements. Sponsored by the government of Jordan (possibly also that of Saudi Arabia), this uprising reached its peak with an attack on the Aleppo Artillery School, on 16 June 1979, in which 83 cadets were killed. Subsequently, daily terrorist attacks gradually spread around the country. Not all of these were undertaken by the Brotherhood: the resistance did gain some popular support and spread well beyond areas usually associated with that organisation. Indeed, the Islamic Revolution in Iran motivated a wave of mass protests and strikes that spread through Syria in 1980, some of which degenerated into firefights with security forces.

With all of the security apparatus and most of the military dominated by Alawites, Assad's government found it unproblematic to react with brutal suppression. In February 1980, Assad ordered the 3rd Armoured Division and the SADs into Aleppo. Mechanised units sealed off entire districts, and then the 'commandos' launched house-by-house raids, rounding up hundreds of suspects. Similar practices were applied in Hama and Dera'a a few weeks later, with the result of hundreds of dead oppositionists – whether Moslem Brothers or not – and thousands arrested. The Muslim Brotherhood attempted to assassinate al-Assad on 26 June 1980 but failed and the Syrian president then ordered the summary execution of around 1,000 Moslem Brothers held in the notorious prison in Palmyra/Tadmor.[3]

Theoretically, the insurgency was thus crushed: in practice, the brutal reaction of the security services prompted much of the Brotherhood into further radicalisation – which in turn facilitated its downfall because extremist Islamism traditionally does not find much sympathy with the Syrian public. In early 1982, a coup attempt staged by elements of the Air Force was prevented by the intelligence services: a major insurrection in Hama that was to take place simultaneously, was thus initiated belatedly. The air force was decimated by purges and the government then surrounded Hama with elements of the 47th Armoured Brigade and the 21st Mechanised Brigade of the 3rd Division (under the command of Hafez al-Assad's cousin Major General Shafiq Fayyad), and Rifa'at's SADs. After days of intensive artillery barrages, commandos and mechanised infantry, supported by tanks, moved in razing entire districts, and slaughtering around 20,000 civilians. By the end of this 'battle', about a third of the historic inner city of Hama had been reduced to rubble. Most of the victims of this assault were buried in mass graves upon which apartment buildings, public parks and various government facilities were constructed.

ساحة
الرئيس حافظ الأسد

In line with maintenance of the personality cult of Hafez al-Assad, this memorial was erected at the eastern entrance of Qunaitra to remind of the Israeli withdrawal in June 1974. Similar memorials and sculptures of al-Assad have been erected in hundreds of other sites around the country. (Photo by Tom Cooper)

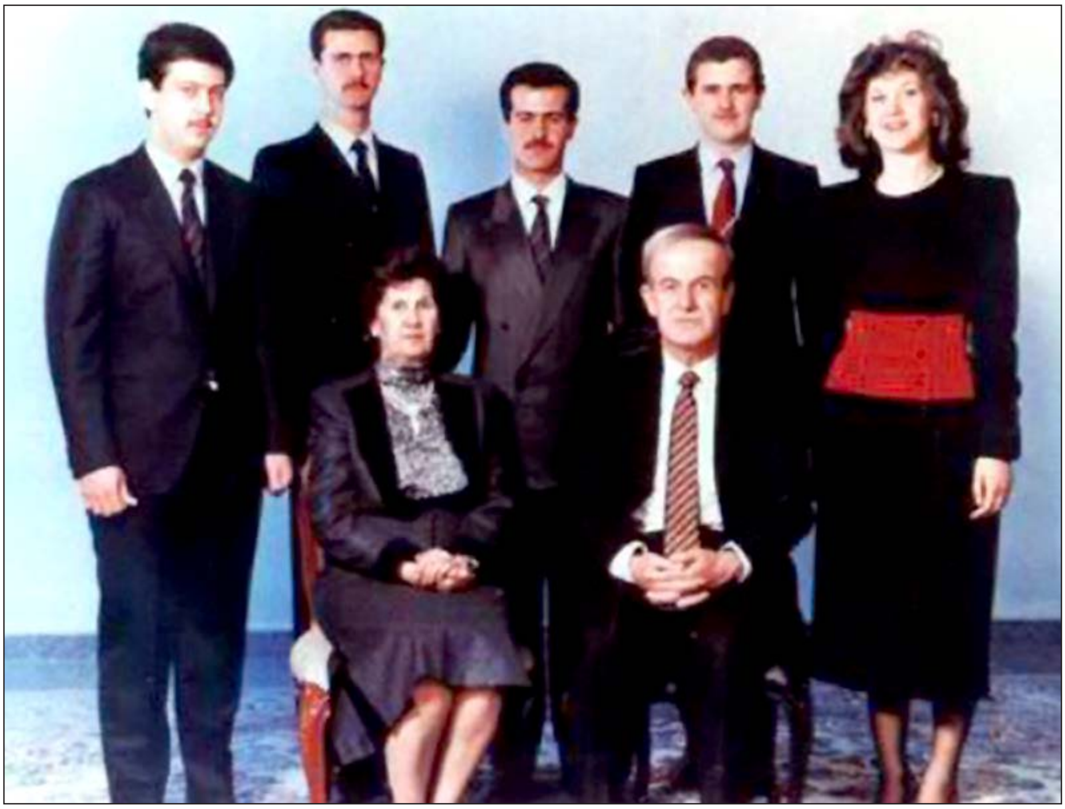
Although the 3rd AD remained to garrison the city for a whole year, with a literal 'tank in almost every street', for all practical purposes, the Hama Massacre ended with a clear-cut defeat of the armed insurgency against the Assad regime. While a few of the surviving Brothers fled abroad, after such a negative experience it took nearly two generations for an entirely new, secular and non-violent opposition to come into being inside Syria.

THE CROWN PRINCE'S SPRING

Following decades of a reign characterised by support for several militant Palestinian organisations, close cooperation with the Islamic Republic of Iran and Hezbollah in Lebanon, and opposition to pro-Western Arab countries, Hafez al-Assad died on 10 June 2000. Because his oldest son Bassel – the 'crown prince' originally prepared to succeed him 'in throne' – was killed in a car crash in 1994, Hafez was succeeded by his second son, Bashar Hafez al-Assad. The process of succession posed a significant threat not only for the al-Assad clan, but for the unity of the Alawites and the entire government. Unsurprisingly, al-Assad senior had already ordered his Army Chief of Staff, Lieutenant General Hikhmat Shihabi, to purge the military and security apparatus of all officers of suspect loyalty in 1998. From what little is known about subsequent developments, it is usually said that only the loyalty of their key Sunni supporters – foremost the clan of the Sunni Minister of Defence Mustafa Tlass, supported by the Saudis – ascertained the military's support for the new president.

Educated in the West, Bashar was seen by many as a potential reformer of the police state he inherited from his father. At least initially, he did try different strategies, including releasing political prisoners, closing a few prisons, and encouraging something like an 'intellectual debate'. However, this 'Damascus Spring' as it was called, proved short lived and by 2001 a new wave of repression put the lid on all resentment. Syria remained largely isolated on the international scene. Nevertheless, Bashar did reach reasonable levels of popularity within wide circles of the Syrian public, partially because of repeated increases in pay for public employees, and partially because of his populist speeches. Furthermore, Syria experienced a gradual economic improvement during the early 2000s, primarily thanks to profits from oil exports and partially because of Saudi investment in local infrastructure. What is less-well known is that much of the early Syrian oil exports were actually exports of oil smuggled in from Iraq, which found itself under a set of stringent embargoes during the 1990s. Latecomer into this business (behind Turkey and Iran), the Syrian government began earning nice profits from reselling Iraqi oil, especially so once the old pipeline

Bashar al-Assad wearing the uniform of a 3-star General, the top military rank not assigned to any other commissioned military officers in Syria. (SANA)



The al-Assad family, with Hafez al-Assad and his wife Anisa in the foreground, and standing, from the left, Maher al-Assad (one of the commanders of the Republican Guards Division), Bashar, Bassel, Majid, and Bushra. (Syrian Government/open source) connecting Kirkuk with Tartus (constructed by the British in the 1930s) was reopened. Under pressure to sell in order to earn income required to maintain itself in power, the government of President Saddam Hussein of Iraq was exporting its oil to Syria at discount prices. Damascus sold a part of it on the domestic market while exporting the majority at the usual prices. Nobody knows exactly how much Iraqi oil was smuggled via Syria in those years, but some estimates went as high as US$3 billion annually. Syria is not as oil-rich as its neighbours and – buried deep underground – the local oil is expensive to exploit. The smuggling of Iraqi oil had positive effects upon development of the local petrochemical industry: with the help of income obtained in this fashion, the business of exploiting local oilfields became profitable enough to bridge the gap until the times when oil prices increased enough to make exploitation of Syrian oilfields profitable.

Coupled with limited economic liberalisation, the introduction of private banking, encouragement of foreign private investment, and negotiations for a free trade association with the European Union, oil exports resulted in dampening of demographic pressure. However, many of the positive effects of this development were neutralised by the influx of millions of Iraqi refugees, draught, and the Southern Lebanon War of 2006. Ultimately, because of widespread corruption and nepotism, and continuously brutal repression of any kind of dissent, Syria was in no better position as of 2010 than 10 years before.

2

GOVERNMENT FORCES

The armed forces of the Arab Republic of Syria as they existed in 2011 were the result of past confrontations with Israel and an emphasis on maintaining internal security: a massive conventional military, including an army, air force, navy, and an air defence force. What is less well-known is the importance of various ‘special’ and paramilitary forces for maintaining the Assads in power. Even less well-known is that from early 2013, and under increasing Iranian influence, these armed forces underwent a gradual transformation into a conglomerate of armed militias, largely consisting of Alawites, members of various intelligence services and Sunni members of the Ba’ath Party.

BACKGROUND OF THE CONVENTIONAL SYRIAN MILITARY

The Armed Forces of the Syrian Arab Republic trace their origins to the gendarmerie created by the French Mandate authorities after the conquest of the Kingdom of Syria. Consisting of French officers and native volunteers, in 1925 this force was expanded through the establishment of the Special Troops of the Levant, which saw limited combat service during the British and Free French invasion of Syria in 1941. French officers remained dominant during the years immediately prior to Syrian independence but were gradually replaced by Syrian officers educated at the Homs Military Academy and various other institutions in Syria and abroad before the last of them had left in April 1946. By 1948 the armed forces – which celebrate their official day of establishment on 1 August – grew to about 12,000 officers and other ranks, which included the Syrian Arab Army, Syrian Arab Air Force and a small Syrian Arab Navy. After the 1948 Arab-Israeli War, the military became heavily involved in politics, and it was only after Assad’s ascent to power in 1970 that its full attention was again redirected to outside threats.

After being beaten back into a near-defeat while trying to recover the Golan Heights during the October 1973 War, starting from 1976 the Syrian military was involved in the civil war in Lebanon, initially intervening on the side of the Lebanese government against a rebellion of the Palestinian Liberation Organisation (PLO) and various other armed groups. Although badly beaten during the Israeli invasion of Lebanon in June 1982, the Syrian military remained in the country, forming close links to the Iranians while they supported the establishment of Hezbollah in the mid-1980s. During the latter period, the Syrian armed forces experienced their last major expansion while Hafez al-Assad was attempting to – with extensive support from the Soviet Union – establish a sort of strategic military balance with Israel. Eventually, this effort failed because the Syrian economy could not support it, and because Moscow stopped providing arms under favourable conditions. Soviet-Syrian military cooperation practically ceased due to disagreements over the resulting debts by 1989. Nevertheless, the defeat of one of the Lebanese armed militias by the Syrian military was instrumental for the end of the Lebanese civil war in 1990, and Syrian troops remained based in that country until 2005, when they were withdrawn amid public protest and international pressure.

During the 1990s, the general condition of the Syrian military deteriorated dramatically. The collapse of the Soviet Union and break in military relations with

Bashar al-Assad with members of the Syrian General Staff praying at the Tomb of the Unknown Soldier, on the western side of Mt Kasyoun, in October 2012. (SANA)

Maher al-Asad, who underwent 'special forces' training, was officially the commander of the 42nd Armoured Brigade of the 4th Armoured Division, as of 2011. Actually, he was in command of the entire division, which was responsible solely to him, and thus neither to the Syrian Arab Army, nor the Ministry of Defence in Damascus. (via Albert Grandolini)

Moscow, along with Russian demands for payments in hard currency resulted in significant problems with the resupply of spares and new equipment. Furthermore, nearly all of the equipment – most of which was based on technologies from the late 1960s and early 1970s, and had already proved unable to match the Israeli military in earlier times – became obsolescent. Combined with the lack of funding, this resulted in most heavy equipment being put into storage.

The general condition of the Syrian military changed to some degree starting in 1998, when Major General Ali Aslan was appointed the Chief of Staff of Armed Forces. Having befriended Hafez al-Assad since 1962, Aslan modernised parts of the military through at least some influx of modern equipment with the help of arms deals he negotiated around the world, including Armenia, China, Iran and North Korea. However, Aslan was out of position to find a solution for persistent quarrels with Moscow over debts for equipment delivered in the 1980s, which Damascus continuously refused to pay. Therefore, and despite strenuous efforts of the Russians, Syria did not purchase any quantities of modern armament from Moscow before Aslan was forced into retirement over differences with Major General Assef Shawkat, in 2002.

Shawkat's emergence is a classic example of the presence of extended family networks in Assad's control over the Syrian military and security services. During the 1980s and 1990s – and through a combination of design and purpose – many members of the al-Assad family began to pursue military careers. One of Hafez al-Assad's first cousins, Major General Shafiq Fayyad (whose son married a daughter of Rifa'at al-Assad), commanded the 3rd Armoured Division (AD) in the late 1970s and through the early 1980s. Designated as his original successor, Hafez's oldest son Bassel al-Assad went to the army and became a paratroop-commando in the late 1980s. Maher al-Assad was trained as a special forces operative, and then joined the Republican Guards, where Mustafa Tlass' son Manaf was also to serve until 2011. Bashar initially pursued a civilian career, but after Bassel's death he was recalled to Syria and underwent 'accelerated' training at the Military Academy in Homs. One of Bashar's closest friends – and husband of Bashar's sister Bushra – was Assef Shawkat, who emerged as the strongman of Syria behind the scenes since 2000, despite a history of sometimes fierce clashes with Maher, and having no power base on his own in Alawite circles. Shawkat was appointed the Chief of Military Intelligence, in 2005.

Meanwhile, from early summer of 2001, the Syrians became involved in a sort of 'shadow war' with Israel. This low-intensity conflict was characterised by regular operations of Israeli Defence Force/Air Force (IDF/AF; reorganised as the Israeli Air and Space Force, IASF, in 2005) reconnaissance aircraft and unmanned aerial vehicles (UAVs) over Lebanon and inside Syrian airspace. Most such operations were undertaken with the purpose of tracking deliveries of weapons – from Iran and elsewhere – to the Syrian military, but especially from and via Syria to Hezbollah in Lebanon. The SyAAF regularly scrambled its MiG-23s, MiG-25s, and MiG-29s in response and these shot down several Israeli UAVs. In other cases, Israeli operations resulted in confrontations with Syrian interceptors, several of which are said to have ended with exchange of fire – but none of which was ever confirmed by any official sources.[1]

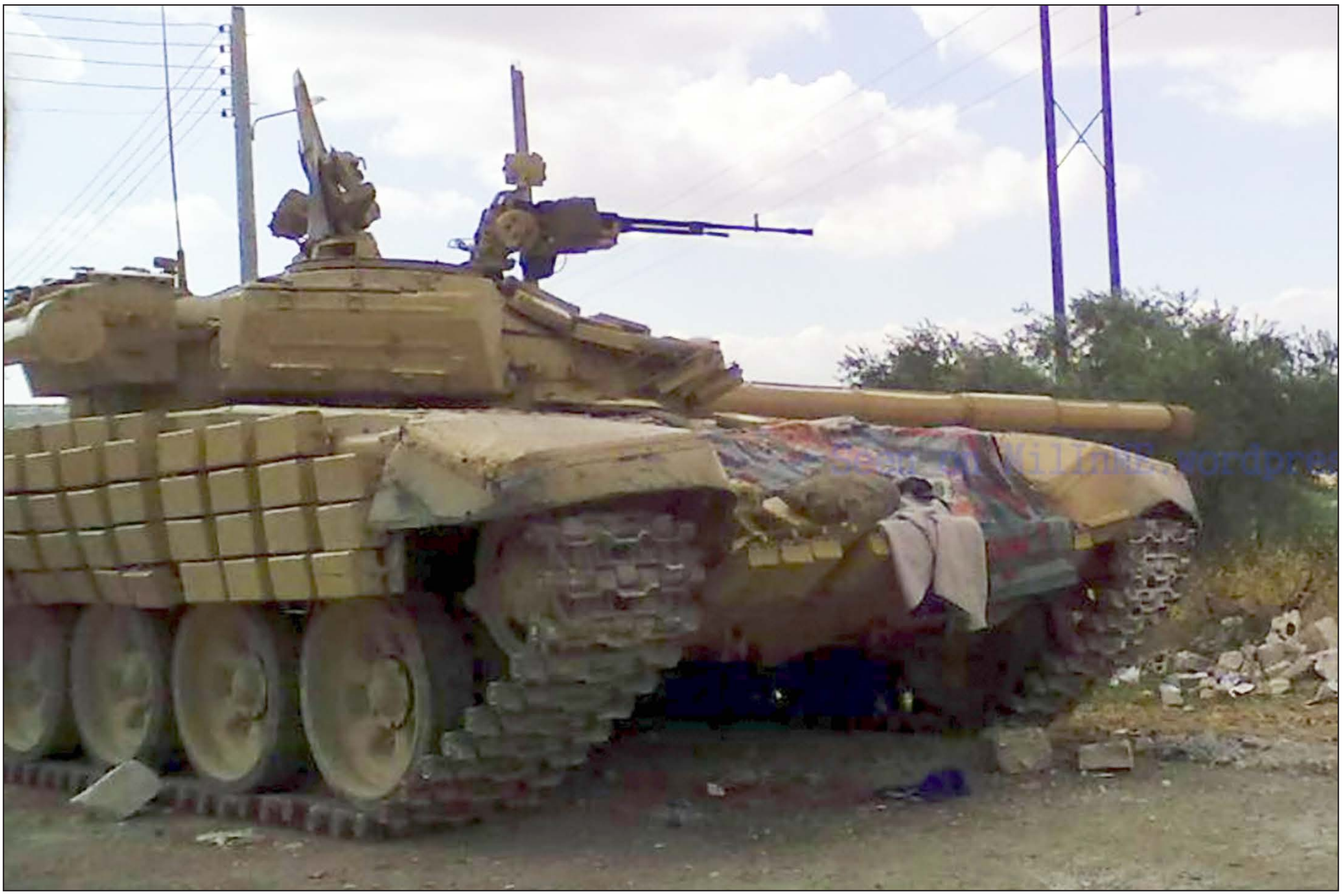
SPECIAL FORCES AND UNITS WITH SPECIAL PURPOSE

Since the establishment of the 1st Parachute Battalion, in 1958, the Syrian military introduced the long tradition of operating – and heavily relying upon – special forces (SF) units. By October 1973, the Special Forces Command of the Army – commanded by Major General Ali Haydar – operated nearly two dozen battalions described as 'special forces' (rather resembling rangers, or elite light infantry by their training and capabilities), the most prominent of which became the 82nd Para-Commando that successfully captured the Israeli observation post on Mount Jebel Sheikh.

During subsequent years, the SyAA established 11 SF regiments, four of which were permanently deployed along the Golan Heights. Six other regiments were deployed around neuralgic parts of Syria, while the seventh – known only as-Saiqa – became the crack, counterterrorist asset trained in the whole range of special operations, including anti-hijacking and hostage rescue, intelligence gathering and long-range operations behind enemy lines. Amongst others, the Syrian Saiqas are known to have undertaken a number of operations in Lebanon and Jordan in the 1980s and 1990s, but also in the West Bank and – posing as its Druze or Circasian residents – inside Israel too.

The insurgencies of the 1970s and Syrian involvement in the Lebanon war strongly influenced the subsequent development of 'special forces'. Additional units were established by not only regular military branches and intelligence agencies, but as practically 'independent' armed forces: private armies with separate – almost exclusively Alawist – composition and leadership and no subordination to the Ministry of Defence. For example, by 1982 Rifa'at al-Assad bolstered his SADs to nearly 60,000, organised into 12 armour- and artillery brigades, but mainly into light infantry brigades described as 'special forces' because of 'special' nature of their purpose, training, equipment, and pay.

Crucial for the further development of the Syrian military's 'special' assets was November 1983 when, following Hafez's heart problems, Rifa'at attempted to establish himself in power. Rifa'at's coup attempt was spoiled by quick reaction of the 1st and 3rd Armoured Divisions, and Ali Haydar's Special Forces Command, which blocked the SADs while these were deploying into Damascus. While the al-Assad's matriarch, Naissa, mediated between her sons to reach a solution by which Rifa'at was sent into exile in France, the SAD was subsequently disbanded. Some of its units were reorganised as the 569th Armoured Division, later



Sand-coloured T-72AVs like this example photographed in Rif Dimashq in October 2012, were operated by mechanised brigades of the Republican Guards Division – a unit subject to the personal control of Bashar al-Assad, and thus outside the chain of command of the Ministry of Defence. (via M.Z.)

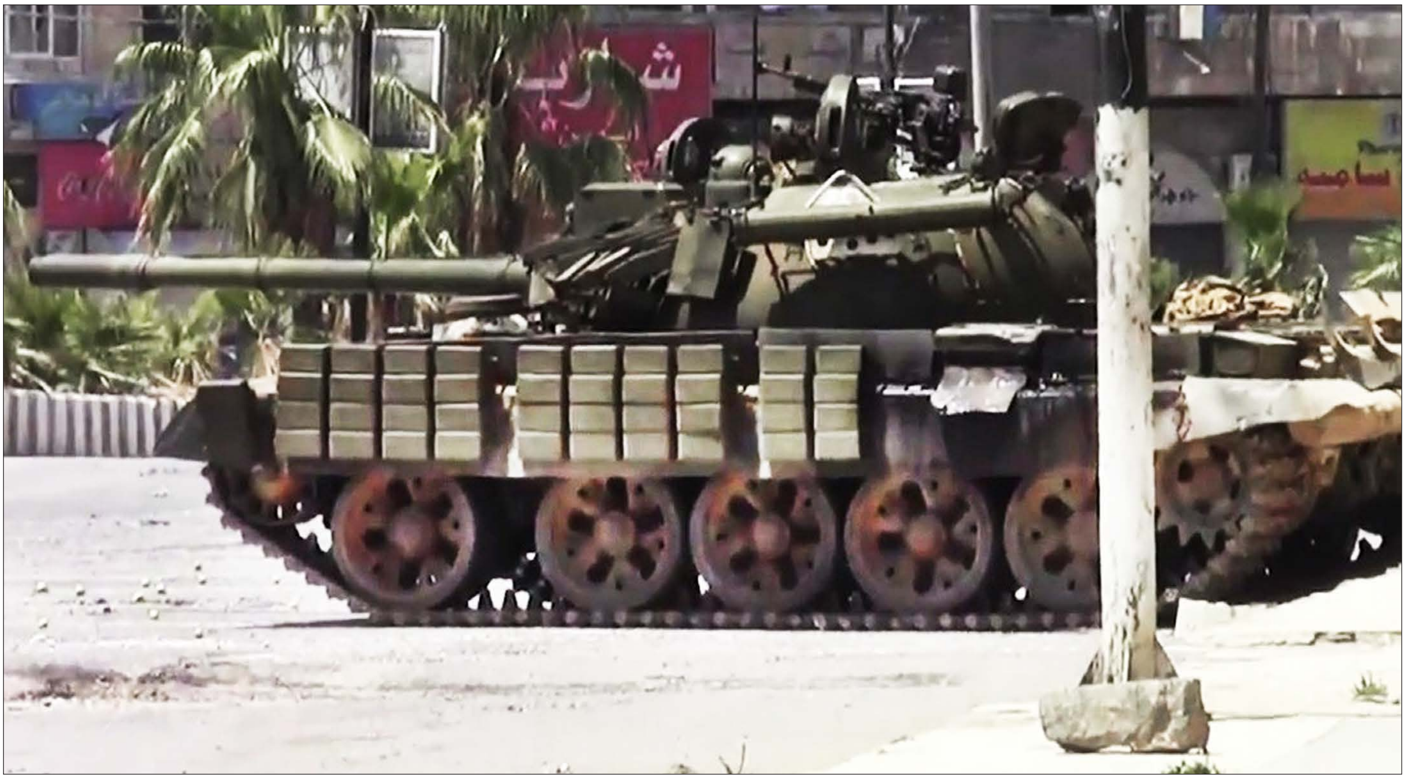
reflagged to become the 4th Armoured Division, but the majority were reassigned to the Republican Guards Division (RGD) and Army's SF units. In turn, the RGD – which came into being in 1976 as a 15,000-strong armoured division under the command of Adnan Makhouf (first cousin of Hafez al-Assad's wife) – was reorganised to consist of three mechanised brigades and two SF security regiments, with particularly strong artillery and air-defence support. While the RGD was stationed in bases on the western side of Mt Qasyoun, surrounding the new Presidential Palace, the 4th AD was garrisoned inside a huge military complex in the southern suburbs of Damascus. Combined, this assured that both units were in perfect position to react to any kind of threat for the government.

A fate similar to that of the SADs befell the Army's Special Forces Command in the mid-1990s, when Ali Haydar objected to the possibility of Hafez's succession through Bashar. The general was arrested and his command split into the 14th and 15th Special Forces Divisions each subordinated to a different Army corps.

Despite their periodic downfalls, even disbandment, all of the above-mentioned units tended to be better motivated, trained, equipped, more professional, and better paid than any comparative assets of the regular army. They not only bore the brunt of the counterinsurgency effort against Moslem Brothers and other Sunni groups through the early 1980s, but also fought the most important battles in Lebanon during the same period of time. Furthermore, all of them were only nominally subordinated to the Chief of Staff of the Syrian Armed Forces – Lieutenant General Hassan Turkmani as of 2011: their commanders were responsible directly to the President.

SYRIAN ARAB ARMY

In comparison to the special forces, the Army remained primarily oriented towards defence against outside threats, primarily that from Israel. During the 1980s, the SyAA was expanded and reorganised to consist of three Corps Headquarters (HQ) and 13 conventional armoured and mechanised divisions, most of which consisted of four manoeuvre brigades. The purpose of the 1st Corps was defence against an Israeli invasion over the Golan Heights or through Jordan. It had its units deployed within overlapping positions along two lines of defence (each divided into a northern and southern sector) along the ceasefire lines with Israel and the border with Jordan. In addition to exercising control over three mechanised divisions and one armoured division, it had one special forces division and two independent infantry brigades under its command. The 2nd Corps was originally responsible for the Syrian troops deployed in Lebanon. Following the Syrian withdrawal from Lebanon, this Corps became responsible for providing the strategic reserve for the 1st Corps and for protection of the border with Lebanon. Correspondingly, it consisted of 'only' two armoured divisions. The 3rd Corps was established with the task of defending the borders with Iraq and Turkey, and reinforcing the front in a war with Israel. It controlled two armoured divisions and supervised two nominally independent divisions responsible for the defence of northern and eastern Syria. Notable is that, despite the introduction of the Corps command structure, most of division commanders continued reporting directly to the President. Correspondingly, not only the Chief of Staff of the Syrian Armed Forces but also the Corps HQ exercised only a limited operational control over the Army's divisions.



Large numbers of obsolete, but significantly upgraded T-55AMVs – like this example photographed in Dera'a in 2012 – formed the mainstay of the armoured and mechanised formations of the Syrian Arab Army. Despite advanced ERA and fire-control systems, their losses were heavy. (via Tom Cooper)

Further down the chain of command, each armoured division was organised into three armoured brigades and one mechanised brigade, usually equipped with Soviet-made T-72 or T-62M main battle tanks (MBTs) and BMP-1 infantry fighting vehicles (IFVs). Mechanised divisions usually consisted of two or three mechanised brigades and one armoured brigade equipped with Soviet-made T-55 MBTs and BMP-1s. Each division further consisted of combat support elements and a 1,500-strong divisional artillery regiment (divided into three battalions), and at full strength totalled around 15,000 officers and other ranks.

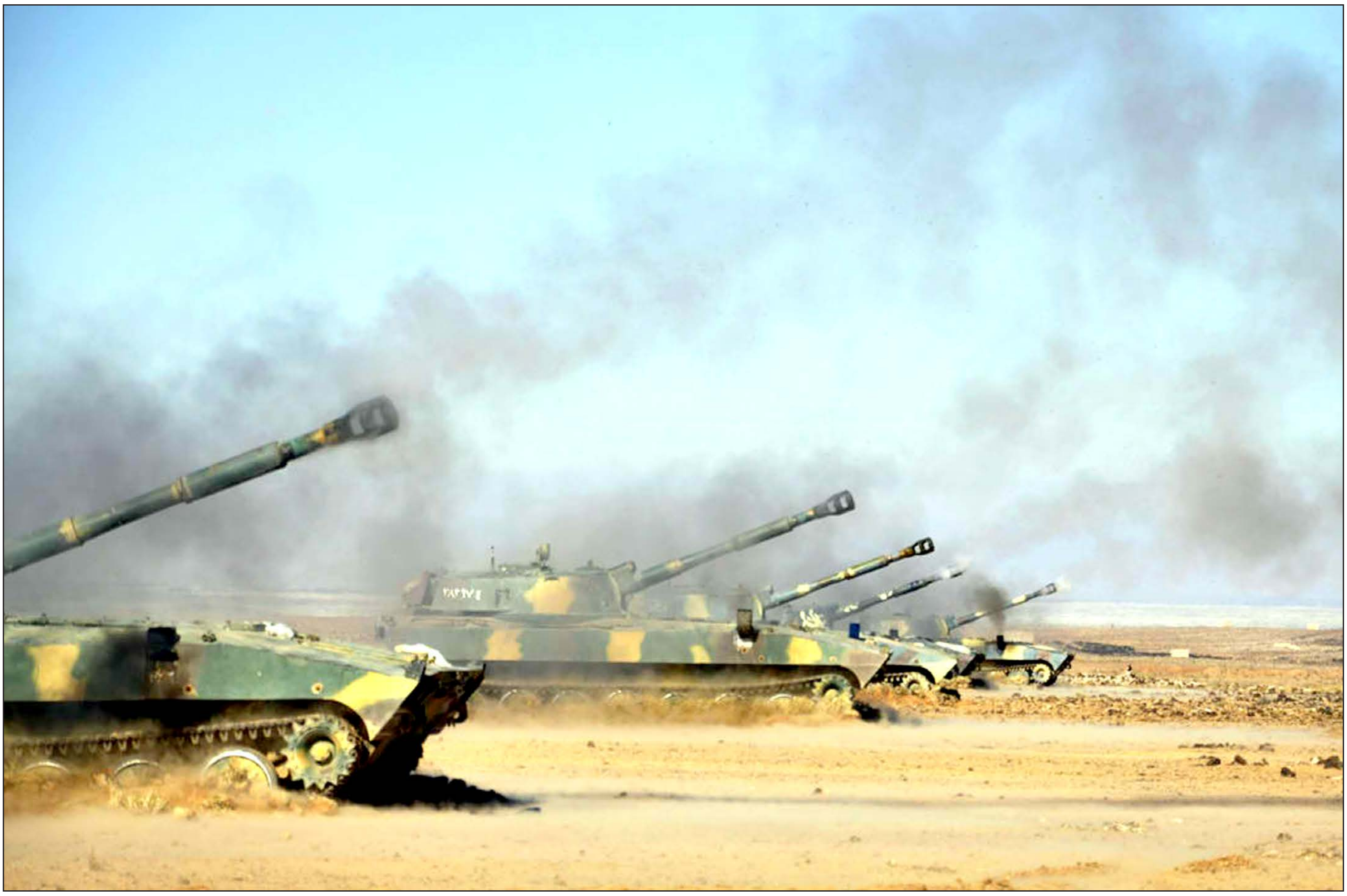
Despite the existence of corps commands and divisions, the primary manoeuvre unit of the SyAA remained brigades, usually made up of 2,500 and 3,500 soldiers, organised – depending on the type of formation – into either three armoured battalions and one mechanised battalion, or three mechanised battalions and one armoured battalion. Each brigade had its organic air defence, engineering and other combat support elements. Based on these figures, most assessments cite the SyAA as comprising 220,000 personnel as of 2011, when their nominal organisation was as shown in Table 1.

The actual strength was significantly lower because – while usually commanded by Alawites – most units consisted of Sunni conscripts – the mass of whom did not follow the mobilisation order of 2011. Furthermore, because the lack of funding forced the Army to store much of its heavy equipment, many brigades were maintained at cadre level only. When ordered to mobilise, in March 2011, the ground forces proved unable to bring the majority of their units into operational condition. Out of some 80 brigades of the SyAA, only elements of about 15 ever appeared on the battlefield. Although much underreported and underestimated, defections and refusals to mobilise were widespread and included the most prestigious units loyal to the government: while between 1,500 and 2,000 officers were arrested, about 100,000 military personnel defected, and a similar number refused to follow calls for mobilisation. Even the RGD and the 4th AD lost hundreds of officers and other ranks to defections, summary executions, arrests and detention of those of suspect loyalty. Most SF forces lost nearly 50 percent of their nominal strength. The situation in remaining conventional Army units was much worse: those that did appear usually consisted of cadre personnel bunched together from several brigades of the same division, and none of the 'operational' brigades ever reached even 50 percent of its nominal strength. Correspondingly, the government never managed to bring more than 100,000 army troops into operations. Ultimately, combined with the reassignment of various units to detachments from 'special' units, and extensive combat losses, the scale and impact of desertions resulted in a situation where by mid-2013 the SyAA had practically ceased to exist.

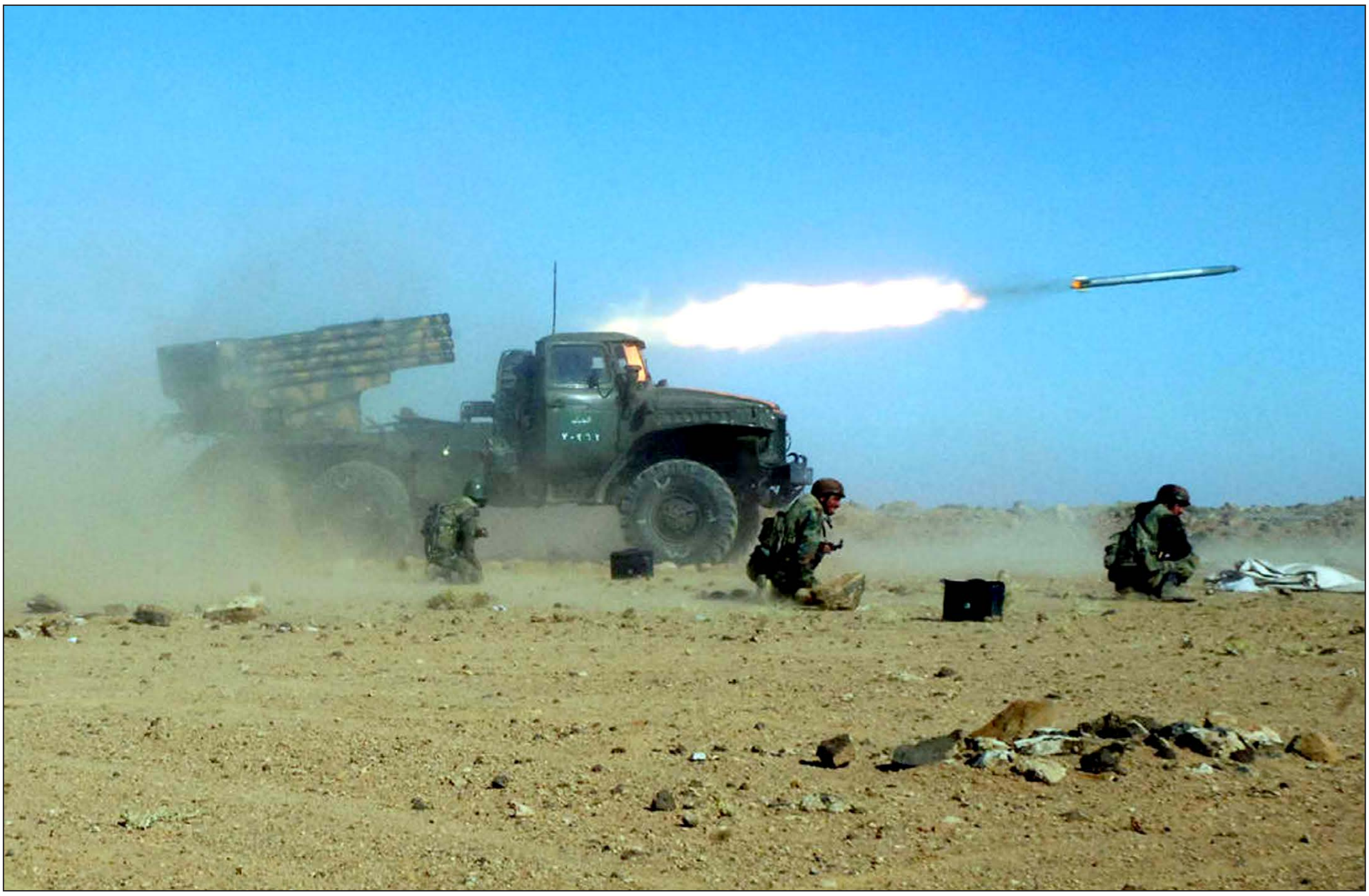
MAJOR WEAPONS SYSTEMS

The Syrian armed forces were almost exclusively equipped with armament of Soviet origin. Between the mid-1950s and the late 1990s, Syria purchased about 4,807 main battle tanks and light tanks, about 3,950 armoured personnel carriers, infantry fighting vehicles and armoured reconnaissance cars, over 4,000 artillery pieces and 500 multiple rocket launchers. Following often heavy losses in the wars with Israel in 1967 and 1973, and after nearly 15 years of wars in Lebanon, and after reselling about 500 tanks to Iran, Lebanon and some other recipients, the number of available MBTs had decreased to around 2,500 by 2011, more than half of which were in storage. Similarly, the number of operational APCs, IFVs and armoured cars decreased to around 2,000.

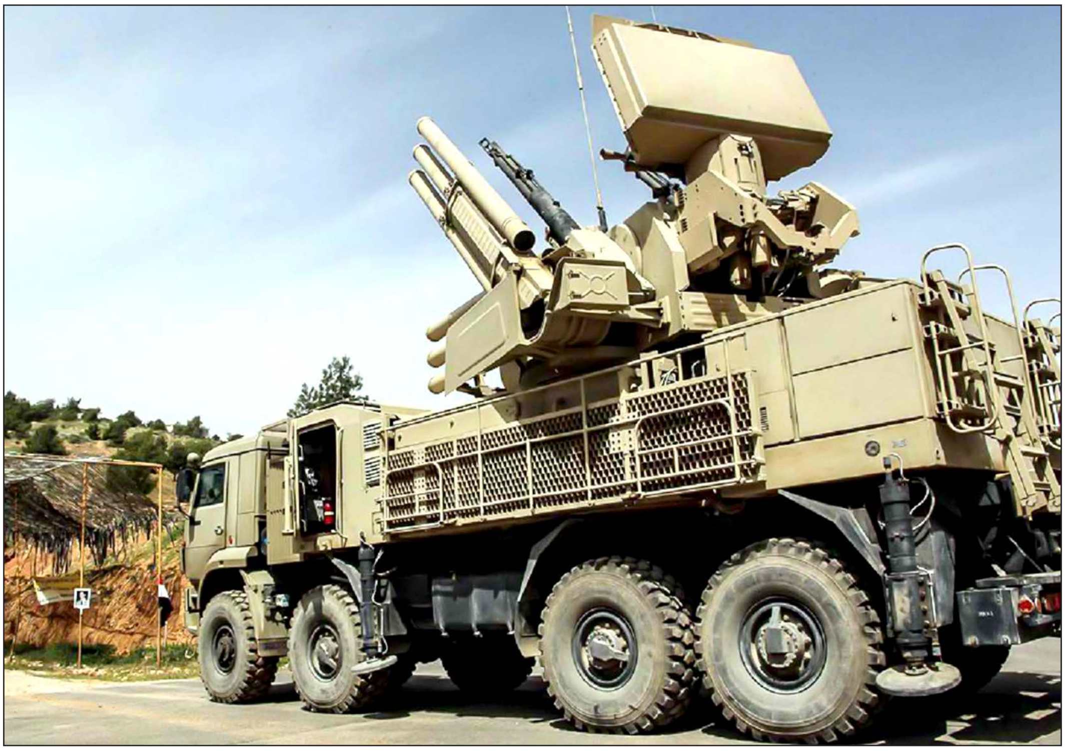
The most powerful main battle tanks of the Syrian ground forces at the start of the conflict were 124 T-72M1S, armed with a 125mm smoothbore gun and upgraded with the Italian-made TURMS-T fire-control system, most of which were assigned to the sole armoured brigade of the RGD. Due to the lack of funds, similar modifications were not available for about 500 T-72AVs (equipped with explosive reactive armour, ERA), the majority of which were concentrated within the 4th AD, and the 1st and



A battery of SyAA 2S1 Gvozdika self-propelled 122mm howitzers seen during an exercise in December 2011. At the time this type was operated exclusively by the RGD and 1st, 3rd, and 4th Armoured Divisions. (Syrian Ministry of Defence)



MRL systems – like the BM-21 installed on a URAL-475D truck, seen here – represented the main weapon of about a dozen missile and artillery brigades of the SyAA. Many of the rounds fired by them were manufactured in Egypt and imported in the 1980s and 1990s. (Syrian Ministry of Defence)



As of 2011–2013, the 112th Air Defence Regiment of the Republican Guards Division operated all of the Russian-made Pantsyr S1 (ASCC/NATO codename 'SA-22 Greyhound') air defence systems delivered to Syria thus far, including the example see here. (Syrian Ministry of Defence)

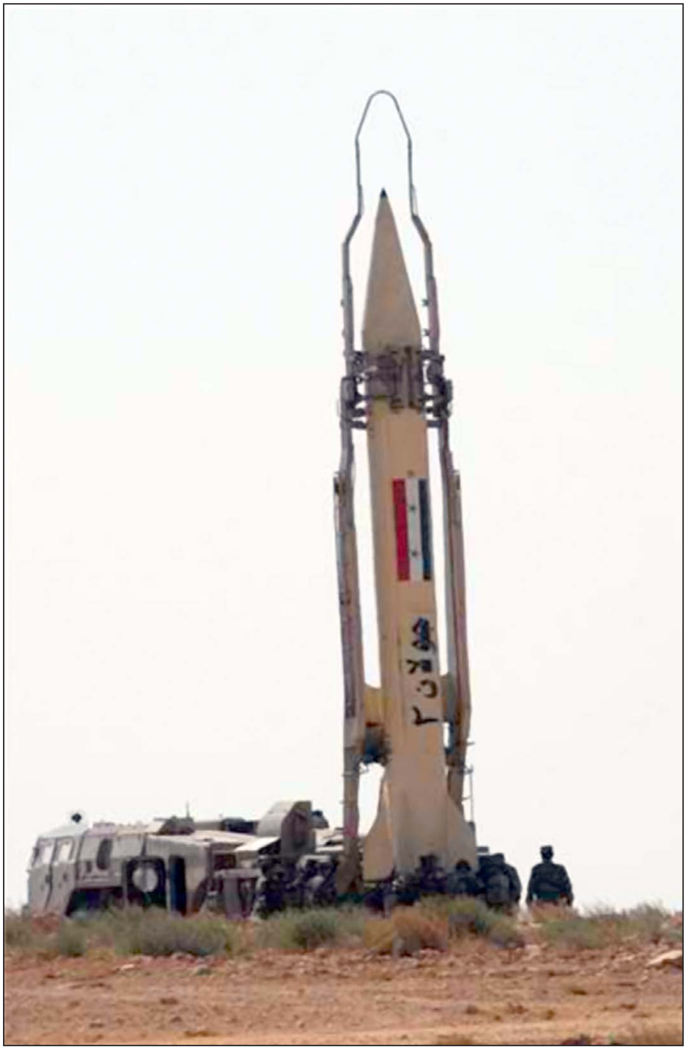
3rd ADs.[2] Other armoured divisions were equipped with about 900 older T-72s and T-72Ms – about 100 of which were upgraded to T-72M1M standard with the help of kits purchased from Russia in recent years. Finally, the balance of the armoured formations were still equipped with much older T-62Ms, armed with a 115mm main gun. Mechanised infantry formations were equipped with around 1,000 T-55s (primarily from Czechoslovak production and including about 200 upgraded to T-55AMV standard with Ukrainian help), with a 100mm main gun, and often with upgrades imported from North Korea.

The primary IFVs of the army were about 1,700 BMP-1s, while the mechanised infantry of the RGD was the only unit to operate about 100 BMP-2s acquired in the late 1990s. About 500 BRDM armoured cars formed the primary element of the reconnaissance companies in each armoured and mechanised brigade, while small numbers of BTR-60, BTR-152 and BTR-50s were also operated.

The RGD and the 4th AD each operated a field artillery regiment with 30 2S1 and 2S3 self-propelled artillery pieces of 122mm and 152mm calibre, respectively. The RGD also included a reinforced air defence regiment equipped with the only SA-8 and SA-22 systems in Syrian service: similar formations of other armoured and mechanised divisions were equipped with older SA-9s and SA-13s. Furthermore, each armoured and mechanised division included an anti-aircraft regiment equipped with 32 ZSU-23-4 self-propelled, radar controlled quad-barrelled 23mm anti-aircraft guns (SPAAGs), while a large number of towed anti-aircraft artillery pieces were in storage or used for training.

As well as their usual field artillery regiments equipped with 30 2S1 self-propelled 122mm guns, armoured and mechanised formations deployed along the Golan Heights were reinforced through additional batteries equipped with towed guns like 122mm D-30s and M-31/37s, 152mm M-54s, and around 100 T-12 100mm anti-tank guns. The same types of towed guns represented the major equipment of artillery formations in other divisions. Furthermore, each brigade of the Syrian army included a battery of six ZSU-23-4s.

The SyAA's infantry formations and dedicated anti-tank formations operated huge numbers of anti-tank guided missiles (ATGMs), ranging from older AT-3s and AT-4s, to more recent AT-10 and AT-14s. French-made MILAN ATGMs, successfully deployed by the Syrians during wars in Lebanon, had meanwhile been withdrawn from service. Significant stocks of man-portable air defence systems (MANPADs) like SA-7s, SA-14s and SA-18s, were withdrawn from service and put into deep storage at the start of the conflict, in order to prevent their capture by insurgents.



A Jawlan (Scud-B) surface-to-surface missile (imported either from North Korea or from Iran) seen while being prepared for launch during an exercise in October 2011. (Syrian Ministry of Defence)

The ubiquitous AK-47 assault rifle remained the primary infantry weapon of the Syrian military, although its more modern variants – including the AK-74M – were used by special forces. Light and general-purpose machine guns were primarily of the PKM type, while the DShK heavy machine gun was also in widespread service, in addition to several other types, available in smaller numbers.

The last part of the Syrian ground forces to become involved in the conflict, the Missile Command, was headquartered in Aleppo before the war, but is otherwise the least-known element of Syrian armed forces. This force apparently included the 96th Missile Brigade, which had been equipped with about 90 antiquated FROG-7 surface-to-surface missiles (SSMs) at earlier times. A few such weapons were fired against insurgent-held areas in late 2012, but this unit primarily deployed about 200 Iranian-made Fateh-110 (named Teshreen by Syrians), and Zelzal (named Misseloon in Syria) SSMs imported since the mid-2000s. The most important Syrian unit operating ballistic missiles is the 115th Missile Brigade equipped with – amongst others – nine 9K72 transporter-erector-launchers (TELs) for SS-1C Scud-Bs and their foreign variants. Syria purchased some 190 R-17E missiles for this system from the Soviet Union. During the 1990s and 2000s, up to 1,000 Scud-B variants and additional TELs were purchased from North Korea and Iran, under the designations Hwasong-6 and Shahab-3, respectively (the Syrians named them Jowlan-2). While the majority of warheads for such weapons were conventional, about 150 were modified for the deployment of chemical weapons. Other Missile Brigades – like the 155th and the 156th – are equipped with locally-manufactured M-301 and Failaq-2, or BM-21 and BM-27 multiple rocket systems of Russian origin.[3]

INTELLIGENCE APPARATUS

Over the last 40 years the government of Syria has established a decentralised network of about 20 security agencies with overlapping responsibilities. The primary purpose of all was to control the military and population and maintain the government in power, though in recent years some of these were yielding additional income for the government too. Large parts of this network functioned as an extensive system of personal relationships and patronage, usually based on family connections. It is because of mutual interests that this system proved highly resistant to insurgency.

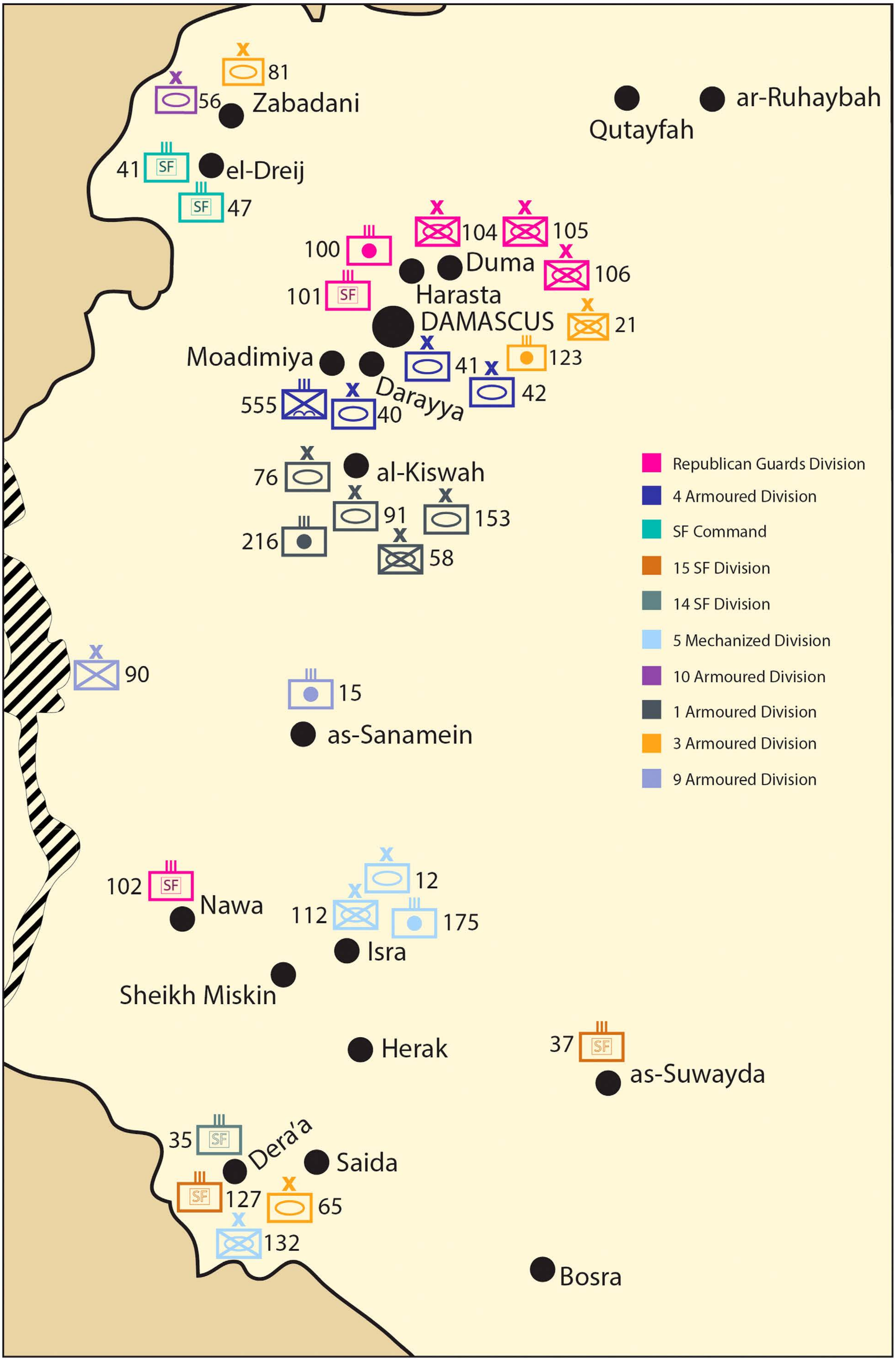
Nominally, the work of all intelligence agencies is overseen by the National Security Bureau (commanded by Lieutenant General Hisham Bakhtiyar). In practice, major intelligence services acted as autonomous entities that report directly to the President. The following overview considers only services known to have operated their own armed units or to have closely cooperated with various military services and paramilitary organisations (described further below) since 2011.

The most powerful and most notorious intelligence service in Syria since the late 1960s – and one of the main instigators of repression against any kind of opposition – was the Air Force Intelligence Directorate (Idarat al-Mukhabarat al-Jawiyya, AFI). Reorganised from a relatively minor security service responsible for control of the SyAAF in the 1960s – and hardly ever collecting intelligence related to its official title – the AFI became involved in the suppression of protests from the start. Commanded by Major General Jamil Hassan it operates through its Investigative Branch (CO Brigadier General Abdul Salem Fajer Mahmoud) and Special Operations Branch (CO Colonel Ghassan Ismail), each of which run a large number of cells all over the country. Reports from persons who were detained by the AFI indicate that the Investigative Branch is in charge of three detention facilities, the biggest of which is at Almazza AB, which is also the HQ of this service. The AFI should also have been in control of Syrian chemical weapons, which in turn were usually deployed by the 100th Artillery Regiment of the RGD.

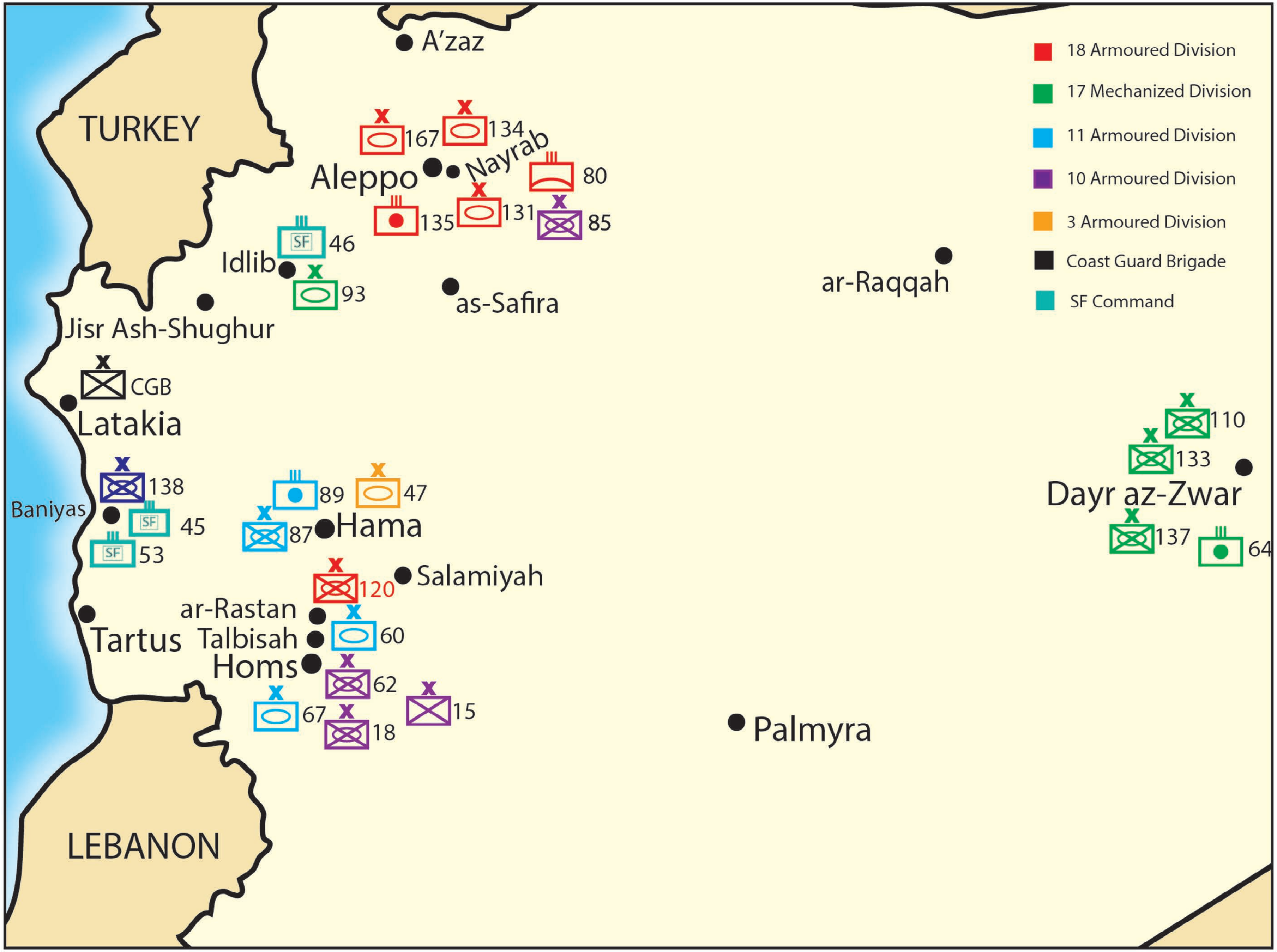
Although there are reports that the AFI was responsible for certain operations outside Syria, it seems that such were rather within the responsibility of the Military Intelligence Directorate or Department of Military Intelligence (Shu'bat al-Mukhabarat al-Askariyya, SMA). Originally established during the French Mandate period as the Deuxiéme Bureau and headquartered at Sassa, in southern Damascus, the SMA operated from offices in Aleppo, Idlib, Homs and Hama, and closely cooperated with various special forces assets. As far as is known, the SMA is commanded by Major General Abdul

COMMERCIAL BANK OF SYRIA
المصرف التجاري السوري
ATM SERVICE
خدمة الصراف الآلي
COMMERCIAL BANK OF SYRIA

Large numbers of Russian-made Gaz-469C 'general purpose utility vehicles' (jeeps) are in service with most Syrian military units. (Photo by Alexandar Hunger)


81
56
Zabadani
ar-Ruhaybah
Qutayfah
41
SF
el-Dreij
SF
47
104
105
100
Duma
106
101
SF
Harasta
DAMASCUS
21
Moadimiya
41
123
Darayya
42
555
40
76
al-Kiswah
91
153
216
58
90
15
as-Sanamein
102
SF
Nawa
12
112
175
Isra
Sheikh Miskin
Herak
37
SF
as-Suwayda
35
SF
Dera'a
Saida
SF
127
65
132
Bosra
Republican Guards Division
4 Armoured Division
SF Command
15 SF Division
14 SF Division
5 Mechanized Division
10 Armoured Division
1 Armoured Division
3 Armoured Division
9 Armoured Division

The dispositions of major units of the Republican Guards, 4th Armoured Division, and the Syrian Arab Army, in south-western Syria in March–April 2011. (Map by George Anderson)


🟥 18 Armoured Division
🟩 17 Mechanized Division
🟦 11 Armoured Division
🟪 10 Armoured Division
🟧 3 Armoured Division
⬛ Coast Guard Brigade
🟦 SF Command
TURKEY
LEBANON
A'zaz
Aleppo
Nayrab
Idlib
as-Safira
Jisr Ash-Shughur
Latakia
Baniyas
Hama
Salamiyah
ar-Rastan
Talbisah
Tartus
Homs
Palmyra
ar-Raqqah
Dayr az-Zwar
167
134
80
135
131
85
46
93
CGB
138
45
53
89
47
87
120
60
62
67
18
15
110
133
137
64
SF

The dispositions of major units of the Republican Guards and the Syrian Arab Army, in north-western and western Syria as of autumn 2011. (Map by George Anderson).

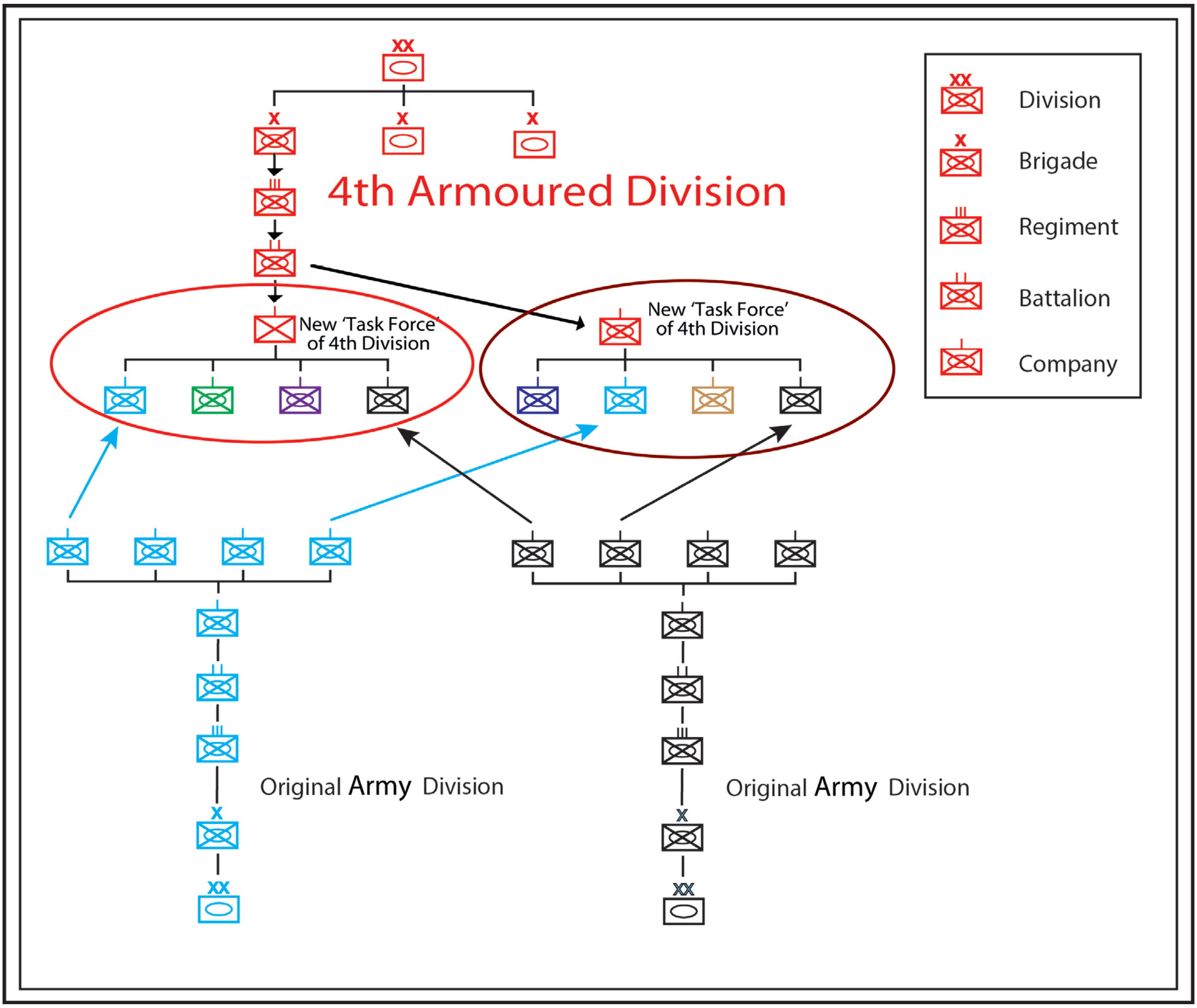


Illustration showing the fashion in which the regime reassigned the remaining loyal units from various Syrian Arab Army divisions and corseted them with elements from the 4th Armoured Division – in order to create about two dozen 'task forces', during April–June 2011. Necessitated by wholesale defections of dozens of thousands of officers and other ranks, this resulted in the impression that the 4th Armoured Division was present 'everywhere around Syria'. Less than 12 months later, even these task forces were dissolved and distributed to protect about 2,500 checkpoints around the country – resulting in the ultimate dissolution of the Syrian Arab Army. (Diagram by George Anderson)

Fatah Kudsiyeh. It consists of the Military Investigative Branch, Palestine Investigative Branch, Communications Security and Surveillance Branch, and several Security Branches – essentially field units deployed to control the function of different military units – deployed in specific regions. Further down its chain of command, the SMA is known to include departments like Military Interrogation, Raid Branch (Unit 235), Military Security Branch, Wireless Branch (Unit 293, also responsible for internet security), Foreign Section (Unit 279), Palestine Section (Unit 237), but foremost of the Internal Affairs Branch (Unit 293), several branches in Damascus (Units 215, 235, and 291, for example), Idlib (Unit 271), Dera'a (Unit 245) and others. Commanded by former chief of the AFI, Major General Abdel-Fatah Qudsiyeh until 2012, and by Major General Rafiq Shahadah ever since, the SMA also closely cooperated with Army SF assets.

Also headquartered as Sassa was the General Intelligence (or 'Security') Directorate (Idarat al-Amn al-Amn, or SSI), often referred to by its old name, State Security. Although including an External Security Division responsible for foreign intelligence work (Unit 300), the SSI was primarily responsible for the surveillance of the Syrian population. Organised into Espionage (Unit 251), Information Security (Unit 255), and Investigative Branches (Unit 285), the SSI also included the Raid Branch that operated a number of raid squadrons – units responsible for tracking down, arresting and executing political opponents – in all major Syrian cities. Said to have been commanded by Brigadier General Hisham Bakhtiar (or Ikhtiyar) – supposedly a Shi'a of Iranian origin and close friend of Bashar al-Assad and Assef Shawkat – in 2001–2005, the SSI was under the command of Brigadier General Zohair Hamad from 2010 until July 2012, and Brigadier General Mohammad Dib Zaitoun ever since.

The Political Security Directorate (Idarat al-Amn al-Siyasi, PSD) was responsible for monitoring political dissent, the media, all registered political parties, and for running state prisons. Commanded by Brigadier General Zaitoun until 2012, ever since it has been run by Brigadier General Rustum Ghazali, and known to have been actively involved in persecution, detention, torture and murder of dozens of thousands of oppositionals.

Overall, large parts of these – and other – security agencies began to act like pro-government militias right from the start of

Table 1: Syrian Ground Forces, Nominal Order of Battle, March 2011

Unit & Main Base	HQ/Base	Heavy Equipment (if operated)	Commanders & Deployments
President of the Syrian Arab Republic and Commander in Chief of Armed Forces: Bashar Hafez al-Assad Minister of Defence: Lieutenant General Ali Habib Mahmoud (replaced by Lieutenant General Abdullah Dawoud Rajiha on 9 Aug 2011, replaced by Lieutenant General Fahad al-Jasem el-Freij on 19 Jul 2012) Chief of Staff Syrian Armed Forces: Lieutenant General Abdullah Dawoud Rajiha (replaced by Lieutenant General Assef Shawkat on 9 Aug 2011) Chief of Staff SyAA: Major General Fahad al-Jasem el-Freij Director of SyAA Security: Major General Bashar Bassam Merhej Commander Military Police: Major General Mohammed Ibrahim Sha'ar (appointed MOI, 14 April 2011) Commander Engineer Corps: Brigadier General Jehad Shehadeh			
Units Reporting directly to the President of the Syrian Arab Republic			
Republican Guards Division **Mt Qasyun, Damascus**			CO Major General Mohammad Shoaib Ali Suleiman; XO Brigadier General Mohammad Qasim
100th Artillery Regiment		BM-21, BM-30, Failaq-2	operating chemical weapons
101st Security Regiment			
102nd Security Regiment			Nawa 2011
104th Brigade		BMP-2, T-72AV	CO Brigadier General Manaf Tlas; replaced by Brigadier General Essam Zaher el-Din (or Zahreddine); Douma & Harasta 2011; Aleppo 2013; reorganised as 104th Airborne Brigade in 2014
105th Brigade		T-72AV TURMS-T,	CO Brigadier General Talal Makhlouf; including 17th Battalion; Douma & Harasta 2011; Qalamoun 2013; disbanded in early 2014
106th Brigade		BMP-2, T-72AV	CO Brigadier General Mohammed Khadur Douma & Harasta 2011; Qalamoun 2013
112th Air Defence Regiment		SA-8, Pantsyr S1	Damascus
?? Artillery Brigade		2S1, 2S3	
4th Armoured Division			CO Major General Mohammed Ali Durgham replaced by Major General Ali Ammar, November 2011
40th Armoured Brigade		T-72AV, BMP-1	Damascus 2011
41st Armoured Brigade		T-72AV, BMP-1	CO Brigadier General Ali Ammar (appointed CO 4th AD in November 2011); Damascus & Homs 2011
42nd Armoured Brigade		T-72AV, BMP-1	CO Brigadier General Maher al-Assad XO Brigadier General Jawdat Ibrahim Safi; including 154th Regiment; Moadamiya, Douma, Dmeyr 2011
138th Mechanised Brigade		BMP-1, T-72AV	Banias & Homs 2011; part defected in January 2012 while deployed near Sheikh Miskin and Saida
555th Airborne Regiment			CO Brigadier General Jamal Yunes; Moadamiya, Darayya, Jisr ash-Shugur 2011; Homs 2012; Qalamoun 2013
154th Artillery Regiment		2S1, 2S3	reorganised as '154th Brigade NDF', 2014
SF Command			CO Major General Ahmad al-Fri, replaced by Major General Bader Aqel XO Major General Fouad Hamoudeh
41st SF Regiment el-Dreij			CO Brigadier General Adnan Deeb (KIA November 2011) Dera'a & Homs 2011
45th SF Regiment			CO Brigadier General Ghassan Afif; including 230th & 625th SF Battalion; Banias, Bayda & Homs 2011
46th SF Regiment			Idlib & Hama 2011; overrun at Atareb (Base 46) Idlib, November 2012
47th SF Regiment el-Dreij			including 62nd Battalion; Dera'a and Hama 2011; Idlib 2012

Table 1: Syrian Ground Forces, Nominal Order of Battle, March 2011 (*continued*)			
53rd SF Regiment			CO Brigadier General George Solomon Banias & Qalat Markab 2011; Homs 2012
54th SF Regiment			CO Brigadier General Aladdin Rajab Homs 2012 then Hassakah Province
416th SF Regiment Tartous			established 2012 in Tartous as NDF unit; deployed in Aleppo ever since
14th SF Division			CO Major General Hussein
35th SF Regiment			CO Brigadier General Ramadan Mahmoud Ramadan; Dera’a & Banias 2011; Homs & Idlib 2012
36th SF Regiment			Homs 2012
554th SF Regiment			Homs 2012
556th SF Regiment			Homs 2012
15th SF Division as-Suwayda			CO Major General Ghassan
37th SF Regiment			cadre only; Homs 2012
127th SF Regiment			including 3rd SF Battalion; Dera’a 2011; Homs 2012
404th Armoured Regiment		T-55	Homs 2012
405th Artillery Regiment			
I Corps, HQ Damascus **CO Major General Faraq Shehada (POW 29 June 2012)**			
5th Mechanised Division az-Zadi			CO Major General Suheil Salman Hassan XO Brigadier General Ali Badi
35th Mechanised Brigade		BMP-1, T-55	cadre only
112th Mechanised Brigade Isra		BMP-1, T-55	28th and 171st Battalion mobilised; Bosra & Nawa 2011
132nd Mechanised Brigade Dera’a		BMP-1, T-55	CO Brigadier General Ahmed Yousef Jarad; 59th Battalion (to al-Herak) and 287th Battalion (to Dera’a), 2011
12th Armoured Brigade Isra		T-55, BMP-1	CO Brigadier General Mohsin Makhlouf; cadre deployed at al-Herak 2011
175th Artillery Regiment Isra		2S1	cadre only; never deployed outside base; overrun in February 2014
691st MP Battalion			Dera’a 2011
7th Mechanised Division			
68th Mechanised Brigade Husseniye		BMP-1, T-55	parts defected in Hama, 2011; battalion to Zabadani 2011–2012, cadre and base overrun in December 2013
88th Mechanised Brigade Andan		BMP-1, T-55	cadre only, base overrun and most of T-55s captured, July/August 2012
121st Mechanised Brigade ‘Kanacker’		BMP-1, T-55	CO Brigadier General Ghanim (KIA 4 November 2011); Damascus 2011–2012
78th Armoured Brigade		T-55, BMP-1	cadre used to form a battalion-sized TF including remnants of 88th and 121st Brigades; Damascus 2011; Aleppo, 2012
85th Artillery Regiment			
9th Armoured Division			CO Major General Yusuf Ahmed
33rd Armoured Brigade Misimiya		T-72, BMP-1	including 42nd, 43rd and 44th Tank Battalions, and 46th Mechanised Battalion; cadre mobilised only; never deployed outside base
34th Armoured Brigade Halfaya (Hama)		T-72, BMP-1	including 51st and 52nd Battalions; cadre mobilised only; never deployed outside base; overrun December 2012
43rd Armoured Brigade		T-72, BMP-1	

Table 1: Syrian Ground Forces, Nominal Order of Battle, March 2011 (*continued*)

52nd Mechanised Brigade		BMP-1, T-72	as-Suwayda & Horan, 2011; hit by defections following deployment to al-Herak, August 2011; disbanded
15th Artillery Regiment	Sanamein	2S1	
61st Infantry Brigade (Independent)	Tel al-Jabiyeh/ Nawa		base overrun by insurgents in February 2014
90th Infantry Brigade (Independent)	Quneitra		base overrun by insurgents in February 2014
II Corps, HQ Zabadani			
1st Armoured Division Kisweh, Rif Dimashq			CO Major General Yusuf al-Assad
76th Armoured Brigade		T-72, BMP-1	cadre reinforced by elements of other brigades; reorganised as Death Brigade NDF
91st Armoured Brigade		T-72, BMP-1	cadre assigned to 76th Brigade
153rd Armoured Brigade		T-72, BMP-1	cadre assigned to 76th Brigade
58th Mechanised Brigade		BMP-1, T-72	Rif Dimashq 2011–2013
216th Artillery Regiment		2S1, 2S3	
10th Armoured Division Homs			
56th Armoured Brigade		T-72, BMP-1	Zabadani 2011; in Azzaz, Minakh AB and Aleppo since 2012
18th Mechanised Brigade		BMP-1, T-72	cadre assigned to 56th Brigade
62nd Mechanised Brigade		BMP-1, T-72	reorganised as a small TF in January 2012, under Colonel Fawaz Hassan; active in Idlib and Lattakia until November 2012; to NDF in 2013
85th Mechanised Brigade Aleppo?		BMP-1, T-72	cadre mobilised; Aleppo & Jisr ash-Shugur 2011; Aleppo 2012; to NDF in 2013
?? Artillery Regiment			
15th Infantry Brigade (Independent), Homs			one battalion mobilised in late 2011; parts related to a tribe from Dayr az-Zawr defected in spring 2012
III Corps, Aleppo			
3rd Armoured Division Qutayfah & Dmeyr			CO Major General Naim Jassem Suleiman; division transferred from III Corps to C-in-C Armed Forces in November 2011; reorganised as 3rd Infantry Division NDF in early 2014
47th Armoured Brigade an-Nasiriyah		T-72, BMP-1	battalion to Hama 2011–2013; cadre and base of 555th Battalion overrun in October 2013
65th Armoured Brigade		T-72, BMP-1	CO Brigadier General Jihad Mohammed Sultan Dera'a & Douma 2011; Homs 2012; Qalamoun 2013
81st Armoured Brigade ar-Ruhaiba		T-72, BMP-1	4 companies mobilised; Zabadani & Dera'a 2011; base overrun late 2013
21st Mechanised Brigade		BMP-1, T-72	128th Battalion mobilised; Qalamoun 2012–2013
123rd Artillery Regiment		2S1	in Hassakah since 2012
67th Artillery Regiment		D-30, M54	2 battalions mobilised, to NDF in 2013 then to Qalamoun
11th Armoured Division Hama			CO Major General Mohammad Deeb Zaitoun; XO Brigadier General Mou'az Waakad Abu Assaaf (KIA 2014) elements mobilised and deployed to Hama, 2011; large part surrounded and besieged at Wadi ad-Dayf base, in 2012; destroyed during withdrawal from Wadi ad-Dayf, late 2014
60th Armoured Brigade		T-62M, BMP-1	ar-Rastan 2011; parts of unit defected

Table 1: Syrian Ground Forces, Nominal Order of Battle, March 2011 (*continued*)

67th Armoured Brigade		T-62M, BMP-1	Homs, 2011; parts of unit defected; Qalamoun 2013
?? Armoured Brigade		T-62M, BMP-1	status unclear
87th Mechanised Brigade		BMP-1, T-62M	Hama 2011–2013; to 10th Armoured Division in 2014
89th Artillery Regiment			
17th Mechanised Division Dayr az-Zawr			
110th Mechanised Brigade		BMP-1, T-55	deployed Lattakia October-November 2011, but large parts defected
133rd Mechanised Brigade		BMP-1, T-55	two battalions combined with artillery regiment securing Dayr az-Zawr AB
137th Mechanised Brigade		BMP-1, T-55	119th and 240th Battalion mobilised; largely defected or destroyed in Dayr az-Zawr 2011–2012
93rd Armoured Brigade		T-55, BMP-1	Idlib 2011; ar-Raqqa 2012; ar-Rastan 2012–2013
64th Artillery Regiment			
18th Armoured Division Aleppo			
131st Armoured Brigade		T-55, BMP-1	
134th Armoured Brigade		T-55, BMP-1	CO Brigadier General Yousef Ismail; 990th Battalion mobilised (CO Colonel For'ad Khaddour), ar-Rastan & Talbiseh 2011; Eastern Ghouta & Qalamoun 2013
167th Armoured Brigade		T-55, BMP-1	CO Brigadier General Ali Mohamed Hamdan; 324th Battalion mobilised; ar-Rastan 2011;
120th Mechanised Brigade		BMP-1, T-55	ar-Rastan 2011–2012; to NDF 2013
80th Air Defence Regiment		ZSU-23-4	cadre mobilised for protection of base and Nayrab AB/Aleppo IAP
135th Artillery Regiment		D-30, M-54	including 23rd Artillery Battalion; cadre mobilised only; overrun by insurgents in December 2012
Coastal Guard Brigade Lattakia		4 TELs for SS-C-1B Sepal, 6 TELs for SS-C-3 Styx; partially replaced by K-300P Bastion (with S-800 Yakonth/SS-N-26 missiles since November 2011)	including missile battalions in Lattakia, Banias, Hamidiyeh and Tartous; 157th Coastal Guard Battalion (motorised infantry formation); and a battalion of PT-76 light tanks

the uprising. Relying on a widespread network of informers, they might have boasted up to 200,000 personnel by late 2011. Their militias were regularly deployed as infantry right behind SyAA formations, carefully monitoring their movement and operations, and – for example – summarily executing soldiers that refused to open fire at protesters. Since 2013, such militias began supplanting detachments from overstretched loyalist units like the 4th AD and various SF regiments in being deployed to directly corset former SyAA units, and some of paramilitaries mentioned below deemed less reliable. Eventually, because of the de-facto demise of the former Army and increasing importance of paramilitary groups, most of such militias were integrated into paramilitary organisations in 2013.

PARAMILITARY ORGANISATIONS: SHABIHA, BA'ATH PARTY MILITIA AND POPULAR COMMITTEES

Originally the lowest level in the network consisting of special purpose units, regular military forces, and intelligence services, various paramilitary organisations played an important role in the control of the Syrian population since the 1970s. Indeed, since the start of unrests in 2011, even paramilitary organisations that were never effectively controlled by the government have fought for it because of their beliefs and personal loyalties. Generally known as 'Shabiha' (Ghosts) within the Syrian population, three major Alawite-dominated paramilitary organisations came into being over time. While usually not distinguished from each other by the opposition or in media reports, they meanwhile represent some of the most important combat assets of the government. Namely, lacking enough reliable military forces to control all of the country, but in position to still rely on a hard core of supporters among a significant portion of the population, the government gradually merged most of what was left of the former Syrian Arab Army with several different paramilitary groups.

Shabiha is actually Syrian slang used to describe a specific class of Alawite smugglers from the Lattakia area in the 1970s and 1980s. It came into being from the car preferred by them, the Mercedes Shabah, or Ghost. Ironically, this mafia-like criminal network was originally run by members of the extended Assad family, the most famous of whom were Fawaza and Mudhir al-Assad, two nephews of Hafez al-Assad. While traditionally profiting from their activities

During the late 1990s, Syria became one of the major hubs for arms trafficking between Iran and Hezbollah in Lebanon, and from a number of sources in Eastern Europe to various destinations in Africa. It was during this time that anonymous transport aircraft of Soviet/Russian origin – like this Antonov An-12 – became a common sight even at Damascus IAP. (Photo by Tom Cooper)

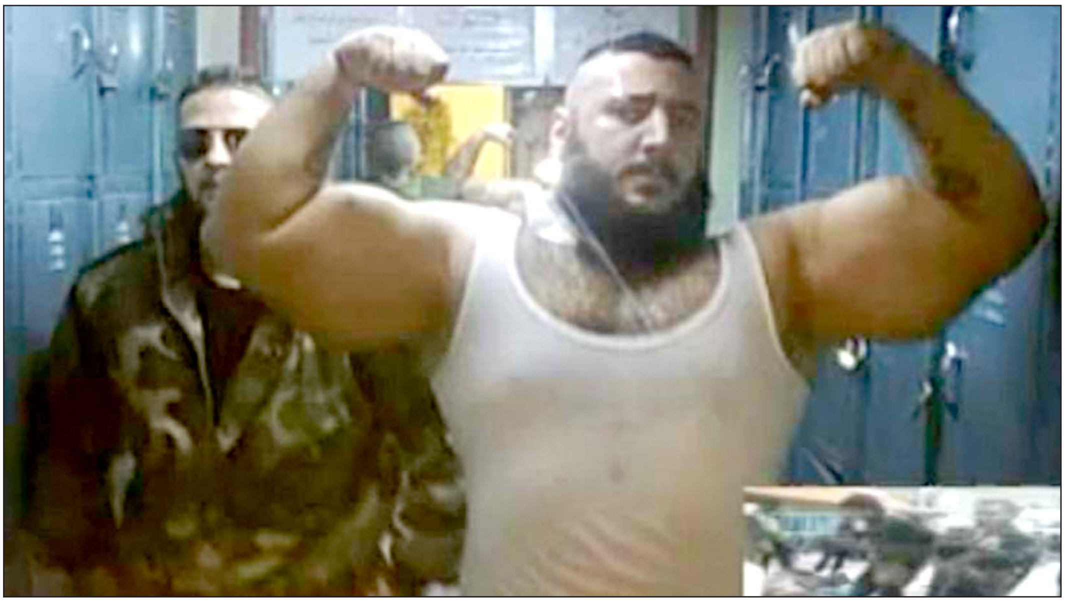
Another type of 'commercial enterprises' run on behalf of officials from various Syrian intelligence agencies, and in cooperation with paramilitary and criminal networks better known as 'Shabiha', was the 'import and export' of Jihadists from around the world into Iraq during the 2000s. For this purpose, a Syrian intelligence officer – Abu el-Qaqaa, seen in these two photos – become prominent while acting as an Islamist preacher calling for 'volunteers' to go to Iraq and fight the USA. (via Tom Cooper)

and tolerating them, the government never really controlled them. The average Shabiha was usually selected for his physical strength, lack of education and blind loyalty to the Alawite sect and the Assad family in particular. Correspondingly, and despite their history of insubordination, as soon as the protesting began, they sided with the government.

Early on, the Shabiha militants were usually deployed separately from regular armed forces and intelligence services. They would mingle amongst the protesters, sow chaos and carry out acts of violence enabling the government to challenge the legitimacy of the protesters. Since summer 2011, they began appearing with intelligence operatives, and sometimes monitored them too, and then began donning military-like uniforms and intimidating the population. As the conflict progressed, the Shabiha received more important roles, including protection of security facilities and prisons, and even interrogation of oppositionals. Ironically, since the start of the Civil War, not a few of them became rich through selling arms to insurgents.

As of 2011–2012, the strength of the Shabiha was estimated at 5,000-10,000, but their number grew significantly over the following years, when thousands were recruited and trained by Iranian instructors and organised into militias present in Qardaha, Jabla, Tartous, and Lattakia.

Additional similar militias have been created since late 2012 from members of other ethnic groups. Amongst these is the Sunni Berri family from Aleppo (known for its involvement in drugs and arms smuggling), and a similar Sunni network in Dayr az-



Members of the Shabiha proudly displaying their muscles with Assad tattoos. Usually recruited for their physical strength, lack of education and blind loyalty to the Alawite sect and the Assad family in particular, from the start of the conflict in Syria they became ever more important for assuring the survival of the government. (via Tom Cooper)

Zawr, and also a large number of criminals released from prisons in exchange for loyalty to the regime.

Quantitatively the biggest Syrian paramilitary force was established following the January 1980 Ba'ath Party Congress, when the government began to arm and train thousands of supporters throughout the country. Leading members of the Ba'ath Partry were encouraged to stockpile arms and ammunition for use in the event of an emergency. It was in this fashion that Popular Organisations came into being, also known as the People's Army (Jaysh ash-Sha'abi) or the Ba'ath Party Militia (Munazzamat Sha'biya, BPM). One might wonder about Bashar al-Assad's decision to depend upon the Ba'ath Party for support, considering it had some two million members around the country, and included many non-Alawites. However, except for a relatively small number of members from Dera'a Province that defected early after the siege of Dera'a, in spring 2011, the majority of the party remained loyal. Obviously, they were not keen to experience any kind of political competition that could undermine the Ba'ath Party's monopoly on power.

By 2011, the BPM was estimated as being able to put as many as 100,000 paramilitaries under arms, foremost Shi'a, Druze and Christians, and a few Alawites too. According to Iranian sources, since 2012 the BPM has been remodelled after the Basij Corps of the Islamic Revolutionary Guards (IRGC) of Iran, and about 50,000 of its combatants have undergone training courses run with Iranian support. By 2013, they became crucially important for the survival of a number of government garrisons in Aleppo and Hama provinces.

Closely mirroring the 'neighbourhood watch' groups from the West and primarily staffed by minority populations who organised and armed themselves to protect their towns and neighbourhoods from insurgents are the Popular Committees (Lijan Sha'biya). The first of these were raised from Alawite, Christian and Druze communities in the 1980s, although many of them came into being out of a desire for self-protection and less so because of support for the government. Others came into being because many in the Alawite community feared that they would be punished for

Members of one of the militias run by the Ministry of Interior, seen in 2013. The mass of such units was subsequently reorganised by 'advisers' of the Islamic Revolutionary Guards Corps (IRGC) into the 'National Defence Force' (NDF). (Photo by Shady Hulwe) the government's atrocities over the past 40 years, regardless of whether involved in any actions of oppression or supporting them, or not. Nevertheless, most have subsequently received weapons from the government and a handpicked selection from the Damascus area was organised into Struggle Companies (Saraya al-Syra), some 20,000-strong, commanded by Adnan al-Assad.

As the elements of the regular Army were dispersed and immobilised to control about 2,500 different checkpoints around the country, and the instructors of the IRGC took over in 2012, the importance of militias grew rapidly. By combining scattered detachments of the SyAA, the raid squadrons of the intelligence agencies, Shabiha gangs, the BPM and other existing militias, the Iranian officers organised what was originally known as the National Defence Forces (Quwwat ad-Difa'a al-Watani, NDF). Better motivated and paid than the regular Army, by 2013 such units bore the brunt of fighting against the insurgency.

3

MASSACRES OF PROTESTERS

Organising protests against tyranny and perversion of a government as entrenched as that in Damascus was by no means an easy choice for the involved Syrian activists, but it seems that many of them had no idea that Assad would react in the most brutal fashion imaginable. However, in the light of all the problems the country was facing, and the government's manipulation of internal politics and media, there was practically no other solution. Early calls for protests issued via social media in mid-February 2011 failed to attract much attention. Before long, some foreign commentators rushed to explain that Syria was a different case to Tunisia, Egypt or Libya – where mass protesting erupted around the same time. Supposedly, Bashar al-Assad had not only 'built a sturdy house' but was also popular and strengthened by the collapse of pro-Western governments in Egypt and Tunisia.[1]

Actually, the roots of the Syrian protests were to be found within an entirely new generation of young, apolitical and secular Syrians, including not only Sunnis but other ethnic, tribal and religious groups too, that had no affiliations with older political ideologies and no connections to Syrian political emigrants living abroad. While they took their time to organise, precisely this gap between secular activists in Syria and politically and/or religiously motivated opposition abroad was to come not only as a surprise for many foreign observers: very few of the activists involved in organising the mass protests paid attention about the opposition abroad. Therefore, most early attempts by Syrians in diaspora to exercise influence upon the revolution failed. It was only later on that this gap was to prove a major hindrance for the evolution of not only the protest movement, but also the subsequent uprising and insurgency.

CRADLE OF THE REVOLUTION

As could be expected, the SMA's Unit 293 reacted to internet calls for demonstrations by turning off large parts of the internet network in Syria, while the SSI began searching for and arresting anybody suspected of involvement in protesting. Although tensions rose, the majority of the population remained quiet – for a while.

On 15 March 2011, the streets of Dera'a filled with thousands of protesters that demanded an end to corruption and repression. AFI and SSI operatives were immediately on the scene and opened fire into the mass, killing the first four victims of the coming war. Protesting continued, nevertheless, and funeral ceremonies for victims of the oppression spontaneously turned into mass protests on 18 March 2011. One peacefully protesting column ran into a security checkpoint on the outskirts of the city, where regime forces opened fire: at least 30 civilians were shot dead and dozens wounded. The next day, even more spontaneous popular protests followed – this time against corruption and repression – which gradually turned into riots, as the people began attacking symbols of the government, and torched the Ba'ath Party HQ and Syriatel building. The security forces withdrew from the streets to the rooftops, from where they opened fire at unarmed civilians below, and yet more people were shot dead. Protests went on into the night, centring around the Omari Mosque in the centre of the city.

The government reacted with lame conciliatory gestures and discharged Faysal Ahmad Kalthoum from his post as governor of Dera'a Province. Both were measures for publicity purposes: actually, Bashar al-Assad wanted to take the protesting offline and finish it through killing, arresting, torturing and murdering

A view of a typical peaceful demonstration in the Bab Dreeb neighbourhood of Homs, similar to thousands of cases staged all over Syria through 2011 and into the first half of 2012. (via R. S.)

A still from a video showing a Syrian Army soldier with protesters arrested in Dera'a, many of whom were either summarily executed or detained by one of the intelligence services, never to be seen again. (via Tom Cooper)

protesters. Correspondingly, he ordered his security services to put an end to protesting – within the shortest possible time, and regardless of the cost. His order set large parts of the security apparatus into motion. The 41st and 47th SF Regiments based at Camp al-Dreij near Damascus were mobilised first and deployed to Dera'a on board SyAAF Mi-8 and Mi-17 helicopters. The 35th SF Regiment arrived from its base in as-Suwayda, followed by mechanised companies from the 4th AD, 132nd Mechanised Brigade (5th MD), and the 65th Armoured Brigade (3rd AD), which arrived from their bases in the Damascus area. The operational HQ of this task force – commanded by Brigadier General Ali Abbas Sharif from the 4th AD and supported by about 20 Iranian 'advisers' – was set up at the local football stadium, which was subsequently also used as a huge detention camp run by the AFI and SSI.

Intending to apply the same doctrine and tactics that proved so effective in the early 1980s and in Iran in 2009, Sharif launched his assault on 23 March 2011. While deploying mechanised forces to surround Dera'a and isolate it from the outside world, he sent black-clad special forces to assault a huge protest that was gathering around the Omari mosque shortly after midnight. Although the civilians demonstrated peacefully and were not armed, soldiers and operatives opened fire, killing seven, and then went on to arrest dozens. When protesters returned to the streets the following morning, special forces launched an assault on the compound of the Omari mosque where several hundreds of protesters armed with rocks, sticks and knifes entrenched themselves. Following four days of repeated attacks, more than 60 civilians were killed inside, and hundreds wounded. Many of the injured protesters brought to the local hospitals were subsequently taken away by security forces and disappeared forever. Unable to hide this crisis from the public, the government launched a 'public-relations' campaign, declaring that this assault was a response to a conspiracy instigated from abroad, and which supposedly aimed to launch an uprising of 'armed Salafists' in Dera'a.

After reinforcing locally deployed units of special forces, army and intelligence services to about 6,000 – including much of the 138th Brigade from the 4th AD – the government launched a major military operation to suppress resistance in Dera'a. The deployment of the 138th Brigade was organised in a particularly interesting fashion, which was subsequently applied all around Syria, in turn creating much confusion in related reporting. Namely, a company from this 'loyalist' brigade was assigned to supervise and work with two companies each from the 3rd and 5th Divisions, in turn creating a new, three-company battalion (or 'task force'), run under the flag of the 4th AD and the leadership of its commanders.

Dera'a was besieged by 25 April, with the newly created task force of the 4th AD sealing off major streets and easily smashing through the few improvised shallow barricades erected by protesters in a few places. Water, food, electricity, and telecommunications were cut off as the military launched repeated raids in the course of which dozens were killed and thousands arrested. As protesting continued and then spread into surrounding towns and villages, soldiers were ordered to open fire and 'to kill' – not only any protesters, but whoever they saw on the street, balconies or even roof tops. Commanders and operatives from the intelligence services were always standing right behind the troops, carefully controlling the shooting into the protesters.

Syrian state-controlled media was quick to start releasing photos and videos from Dera'a, supposedly showing 'gunmen shooting at unarmed civilians and security forces'. Bodies of executed soldiers were always taken away by the AFI and on the next day presented by Syrian TV as 'killed by terrorists'. Actually, the gangs in question were members of the intelligence agencies dressed in civilian clothes and either shot at military units in order to provoke them to open fire, or were 'punishing' soldiers that refused to follow the order 'to kill'. Dozens of cases are known where – upon identifying soldiers that either did not shoot or fired into the air – the commanders of nearby positioned intelligence operatives would call snipers positioned on the roofs of surrounding buildings to shoot and kill such soldiers.

Before long, this provoked serious tensions between the Sunni troops of the special forces, the 3rd and 5th Divisions, and the Alawite, Christian and Druze soldiers from this and other units, especially the 4th AD.[2] After the intelligence services reacted with the arrest and summary execution of officers and soldiers from the 65th Armoured Brigade, parts of this unit mutinied. Some sided with the protesters, while others defected and ran away: one officer took two companies of infantry and two T-55 tanks with him, another sabotaged four T-55s before leaving.[3] On 27 April, some of the defectors clashed with elements of the 4th AD

A still from a video showing a BMP-1 of the 5th MD on the streets of Dera'a. Its badly beaten up and worn-out appearance is typical of practically all vehicles of the Syrian military. (via R. S.)

deployed to control them and there was a short battle in which both sides suffered losses. In a furious action by special forces and the 4th AD, the resistance of defectors was broken and on 28 April the government reinforced its attack on Dera'a, announcing its intention to 'prevent the declaration of a Salafist Emirate in the city'.[4]

Unaware of government intentions, on 29 April villagers from surrounding areas attempted to peacefully break the siege and bring food into the city. Declaring the people marching to Dera'a to be 'Islamists coming to kidnap women and children in predominantly Christian areas', the commanders of SF units and the 4th AD set up a trap near the military housing in Saida, a small town 10km east of Dera'a, and ordered their troops to open fire. At least 98, possibly up to 120 civilians were killed in cold blood. On 1 May 2011, Dera'a was for the first time subjected to artillery shelling and even air attacks by several Mi-8s that deployed unguided rockets in attacks on protesters. The city remained under siege for several months longer. According to local sources, over 3,000 people were killed in Dera'a between mid-March and mid-July 2011, while thousands are still missing.

While 'mopping up' after the massacre in Saida, on 29 April, AFI operatives arrested about 160 civilians, including a group of children caught while scribing anti-Assad slogans on the wall surrounding their school in Saida. Making no distinction between adults and adolescents, intelligence operatives severely tortured the children and 13-year-old Hamza al-Khatib was murdered under torture. The return of Hamza's body to his parents on 29 May – clearly showing scars, lacerations, bruises and burns to his feet, elbows, face and knees, consistent with the use of electric shock devices, and having been castrated – was the drop that overspilled the barrel. Although most of the unrest in Dera'a had been suppressed by that time, publications about his fate sparked a popular revolution.

WAVE OF DEFECTIONS

Protesting in Dera's spread to Damascus, Homs and Hama, and then to Aleppo, Banias, Dayr az-Zawr, Hassakah, Idlib, Lattakia, Qamishli, Raqqah, Suwayda, and Tartus by 25 March 2011. Dozens of thousands of ordinary people marched – first in protest against the government, then in funerals for the dead.

Defying the crackdown and widespread and systematic attacks by security forces that killed hundreds, including many children, and arrested nearly 50,000 people, protests continued unabated. Although the majority of detainees were subsequently released, more than 15,000 disappeared, or the government returned only their mutilated bodies to their families. Such methods of terror backfired severely, and the torture and killings brought a new impetus to the revolution, prompting ever more protesting. Unsurprisingly, President Assad's offer of 'national dialogue' and various political concessions were understood as hollow promises and brought no respite. Foremost, his deeds did not follow his words: when murderous attacks by the intelligence services, Shabiha and the military made large-scale, mass protesting too dangerous, activists reorganised their operations by staging a huge wave of smaller scale protests by night. Despite the crackdown on mass media, every morning, thousands of videos about the protesting from thousands of different districts in larger cities, nearly every town and village were uploaded on the internet. By the end of May 2011, all of Syria was in uproar.

Military-wise, the government was on the verge of losing control of the situation by late April 2011. Advised by a number of IRGC officers present in Syria – including the C-in-C IRGC, Major General Muhammad Ali Jafari, the CO of the IRGC's Quds Force (Jerusalem Corps or Failaq al-Qods in Farsi, a 'special' formation responsible for 'exporting' Iran's Islamic revolution through 'extraterritorial operations') Major General Qasem Soleimani, and Deputy Director of IRGC Intelligence, Brigadier General Hossein Taeb – it mobilised additional military and intelligence units.[5] These were deployed on the streets, or to surround entire districts and then launch house-to-house raids. Initial targets of such operations were blacklisted persons, but eventually every male between 14 and 60 became a target.

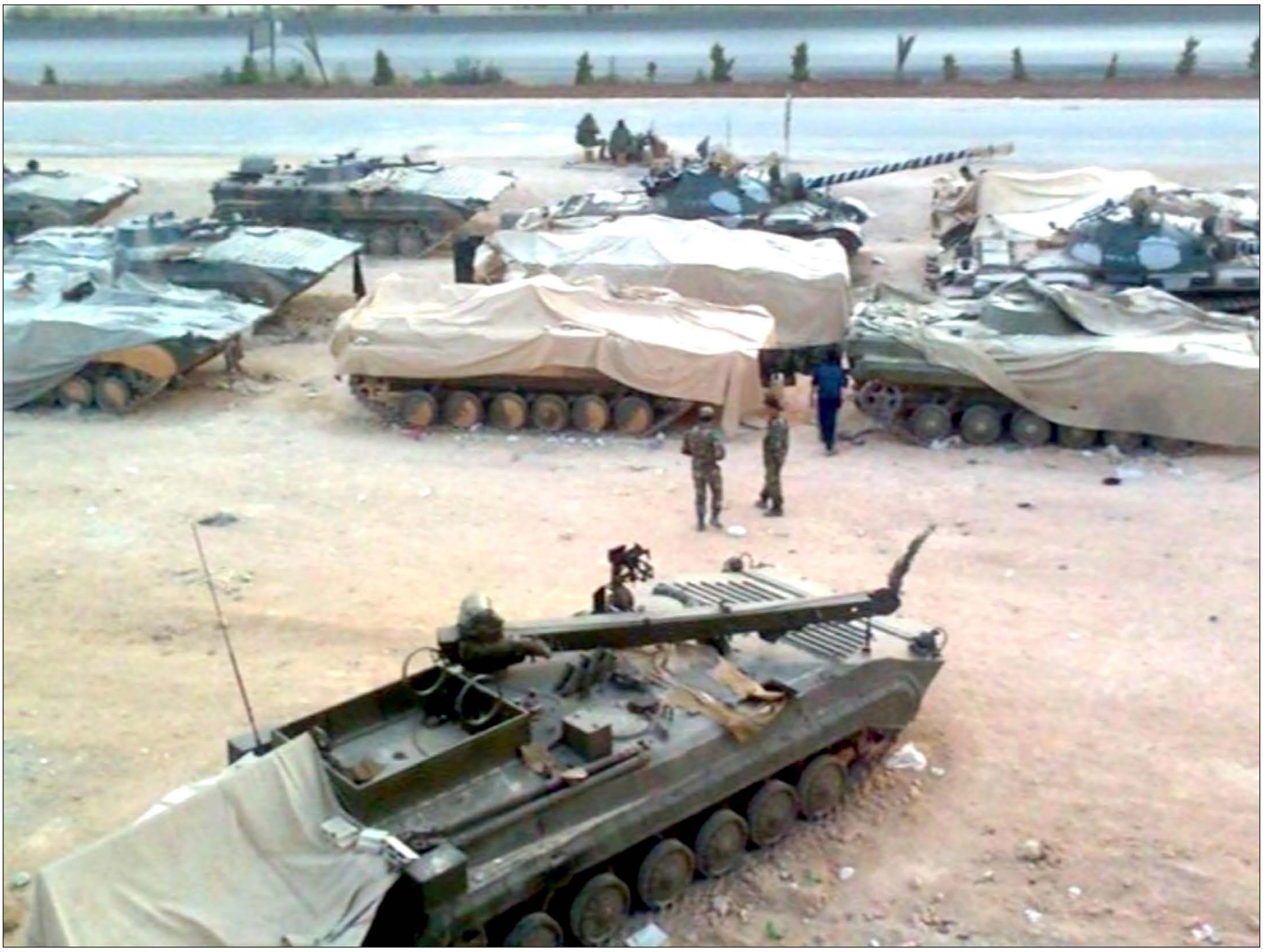
Unavailingly, related news continued spreading through the entire military and intelligence apparatus, resulting in ever more defections. While none of the Army units was operating independently, and thus the involved officers, NCOs and soldiers were never able to freely communicate with each other – at least not without attracting attention from omnipresent intelligence operators and loyalists – there was no hold back. First to feel the impact of defections were the 12 special forces regiments: although all had deployed at full strength, by early May 2011, all were down to two-thirds strength, some less. For example, the 45th SF Regiment deployed to Banias lost 50 officers and NCOs to defections during April. This regiment was expected to receive support from the 76th Brigade from the 1st AD, but the 76th arrived late because nearly all of its Sunni troops deserted during their march to the coast. The situation in Banias eventually became so critical that the government felt forced to rush the already depleted 53rd SF Regiment with the aid of SyAAF helicopters to help.

A still from a video showing a platoon of BMP-2s from the RGD on the streets of Damascus in late spring 2011. Rarely seen in public before early 2011, they were to become a common sight since. (via Tom Cooper)

The assault on Banias thus began only on 6 May, but then with unprecedented force: the town was encircled by MBTs and APCs, while the infantry went house-to-house, arresting, summarily executing, looting and raping. When this proved insufficient, the military launched an operation of large-scale ethnic cleansing of all the Sunnis along the coast, forcing dozens of thousands of civilians to flee over the mountains into Idlib Province by the end of May 2011.

The RGD went into action on 4 May 2011, deploying the 555th SF Regiment, parts of the 104th, 105th and 106th Brigades supported by MBTs and IFVs to storm the Saqba District in Damascus. Another RGD force raided Douma, killing dozens and arresting hundreds. This division lost dozens of its officers (including at least one Lieutenant Colonel) and other ranks to defections subsequently, while the CO of the 104th Brigade – Brigadier General Manaf Tlas (son of the former Minister of Defence) – was arrested and subsequently forced to leave the country.

The 1st Armoured Division proved unable to mobilise more than about half of the 76th Brigade, while the cadre of its



This still from a video taken by a government soldier shows a concentration of vehicles from the 11th AD somewhere along the highway from Homs to Hama, similar to many such sights that could be seen in that area during the summer of 2011. In the foreground is a VPV (armoured engineering vehicle with a 6.5t crane), with eight BMP-1s and two T-62Ms in the background. (via R. S.)

The Banias area was to see several waves of massacres and campaigns of ethnic cleansings of Sunnis, all committed by government forces or pro-government Alawite militias, in 2011–2013. This tragic scene was photographed on the outskirts of the town on 4 May 2013. (ENN)

remaining elements had to hold thousands of Sunni NCOs and soldiers locked in their barracks. The 3rd AD managed to deploy up to two thirds of all three of its brigades, sending the 65th to Dera'a, the 81st to Zabadani, and the 47th to Hama, but by June these units were so depleted by defections that their remnants had to be withdrawn and reorganised as a single brigade deployed in Dmeyr area. The 5th Mechanised Division was severely hit by defections and thus able to mobilise only an equivalent of four depleted battalions. The cadre of the 12th Armoured Brigade and the 171st Battalion of the 112th Mechanised Brigade became operational only during June, when they were sent to join what was left of the 59th Battalion of the 132nd Brigade deployed in al-Herak. The 287th Battalion of the 132nd Mechanised Brigade practically melted away in Dera'a, while the 175th Artillery Regiment was never able to leave its base.

The 7th Armoured Division experienced a spate of defections while attempting to mobilise from its bases along the Golan Heights and proved capable of deploying only company-sized detachments from the 68th, 78th and the 121st Brigades to Zabadani. Even then, the 78th and the 121st practically disintegrated: their remnants were reorganised as a task force with about 30 armoured vehicles, later that year, and then redeployed to Aleppo. The 68th was last reported as still operational in Zabadani, in late 2012, before it was reorganised as a part of the emerging NDF.

START OF THE INSURGENCY

The next major crisis developed in Homs, and the nearby town of ar-Rastan – hometown of the Tlas clan – 45km further north. A series of mass protests in Homs during early May prompted the government to deploy a task force consisting of cadres from the 18th, 62nd and the 85th Brigades from the 10th Armoured Division into the city (rest of the 10th AD; its 56th Armoured Brigade, was meanwhile rushed to Zabadani). These were reinforced by detachments from the 11th Armoured Division. All the elements of these two units were put under the command of companies detached from the 4th AD and under strict control of the intelligence services, which established detention camps in at least two football stadiums. After further protests, nearly two thirds of Homs was put under siege by the military on 5 May.

On 12 May, around 50 soldiers from the 11th Division – many belonging to the Bu Saraya tribe – mutinied and refused to open fire at protesters in front of them. Thirty-five were summarily executed and all others taken away by intelligence operators, never to appear again. State-controlled media subsequently explained that 'Islamist snipers' had attacked the 'security forces', and aired purported confessions of 'suspected insurgents', who were forced to say that they had been ordered 'by foreign elements' to attack Syrian soldiers and bomb installations. With Assyrian Christians joining the protests, demonstrations continued unabated, and also so after government forces opened fire on a funeral procession killing 22 on 21 May.

respectively. All these units were put under command of a task force from the 4th AD, reinforced by the 45th SF Regiment, and then launched an onslaught on Rastan and the nearby town of Talbiseh, in the course of which dozens were killed and hundreds arrested. It was in Rastan and Talbiseh on 30 May 2011, that small groups of defectors and the local population put up armed resistance to government forces for the first time: unable to enter either, the government reacted by putting both towns under siege, and opening artillery fire. More than 200 civilians were killed in this area over the following week, primarily by artillery shelling, but including at least 10 killed when Mi-8 and Mi-25 helicopters rocketed and bombed Rastan for the first time on 4 June 2011.

By 2 June, protests in Hama escalated to the point where civilians brought the city centre under control. This prompted the government to concentrate a number of army units in the suburbs. These included most of the 47th Armoured Brigade (3rd AD), 68th Armoured Brigade (7th AD), 87th Mechanised Brigade (11th AD), and the 46th and 47th SF Regiments, corseted by task forces from the 42nd Armoured Brigade (4th AD), large groups of Shabiha and several detachments from the intelligence services. While advancing on the city centre, the military killed at least 72 protesters on 3 June, and almost as many during funeral processions on the following day.

كتيبة خالد بن الوليد

Amongst some of first Syrian Army defectors that appeared in public was 1st Lieutenant Mohammad Abdul Aziz, who defected with two NCOs from one of the SF regiments in late August 2011. Thousands of Syrian soldiers were to follow in fashion, most of them eventually joining the insurgency. (FSyA release)

Even the Republican Guards Division experienced a spate of defections, as disaffected officers and other ranks understood what was actually going on and refused to open fire at civilians protesting, and at their comrades in arms. 1st Lieutenant Basil Ali had served with the RGD before joining the insurgency in summer 2011. (FSyA release)

Meanwhile, the 60th Armoured Brigade from the 11th AD was rushed to ar-Rastan, which developed into a major hot-spot of protesting after the local population toppled a statue of Hafez al-Assad and pledged to press on with the revolution despite a series of brutal raids and hundreds of arrested and killed. During the following days several units of the 18th Armoured Division arrived in this area, including the 120th Mechanised Brigade, and the 324th and the 990th Battalions – the only elements of the 167th and the 134th Armoured Brigades the government managed to mobilise,

MUTINY IN JISR ASH-SHUGUR

By early June 2011, morale within the Syrian military in general was on the verge of collapse. No matter how numerous, defections remained limited in size until that time, but the inevitable had to happen sooner or later. Seemingly every city, town and village had been raided by a platoon or company of MBTs and APCs, usually supported by truck-borne infantry, and the number of victims of the government's terror actually became countless. When this

A SyAAF Mi-8MT (serial number 1299) seen low over northern Hama Province in mid-2011, when the type was heavily utilised for the transportation of special forces and for some of the first aerial attacks on protesters and mutineers. Notable are hardpoints on the side of the cabin, often used for bombs up to 250kg and UB-16-57 rocket pods. (Photo by YoungHamwiLens, via R. S.)

Another SyAAF Mi-8MT (serial number 1251) seen over Hama Province. As usual, the helicopter had its rear cargo doors open, for easier embarkation and disembarkation of 'passengers' – usually special forces operators. Notable is an indigenous chaff and flare dispenser installed under the boom and the insignia of 'The Works' – SyAAF major overhaul facility at Nayrab AB – applied in white below the cockpit. (Photo by YoungHamwiLens, via R. S.)

did not work, the military began driving their heavy vehicles into the people, as in Dayr az-Zawr on 20 May, where at least a dozen protesters were killed. Amid a rush of reports about such atrocities, the government suddenly launched a report that 'at least 20 security servicemen' were killed in an ambush and gun battle 'with armed men' in Jisr ash-Shugur, in the Idlib Province, and 'another 37 in an attack on a security post' nearby, on 5 June 2011.

Protesting in Idlib – and in nearby Aleppo province – did not catch the government by surprise. It began in April, but the first few large-scale demonstrations were overpowered by the presence of huge numbers of police officers and intelligence operatives. As the protesting intensified and spread, it was the government that found itself overwhelmed by the task of maintaining the crackdown while trying to prevent local SyAA units from melting away. When the police in Jisr ash-Sugor refused to open fire at protesters, loyalists began executing the policemen – prompting the locally based Army battalion into mutiny. Intelligence operatives managed to summarily execute more than 50 mutineers before they were overpowered by the rest of the SyAA battalion. The mutineers armed themselves with weapons captured from police stations and military bases and were then joined by defectors from other military bases in that area. Eventually, this first group of genuine – and entirely native – Syrian insurgents grew to more than 2,000 defectors, led by SyAA officers that declared themselves 'free'.

Quick reaction and brutal – and complete – crushing of such mutinies was of exceptional interest to the government, which insisted on maintaining the image of a military that was free of fracturing. Therefore, elements of the 4th Armoured Division under the command of Brigadier General Sharif were rushed from Dera'a in this direction, followed by one SF regiment and what was left of the 76th Brigade. The 4th AD was temporarily stopped on the Orontes River because the insurgents blew up several bridges. Reinforced by the 35th SF Regiment, the loyalists eventually managed to approach the town and then launched an unprecedented campaign of terror: they not only sought for and summarily executed any deserter they could find, but slaughtered entire families, streets and neighbourhoods, looting and burning not only houses and stores, but also crop fields. Resistance was fierce and losses heavy, prompting the government to deploy the 46th and the 555th SF Regiments, followed by the 85th Brigade into this area in order to enable an assault from two directions.[6] Starting from 10 June, even SyAAF helicopters flew some 30 combat sorties against insurgents in Jisr ash-Shugur, and late that day most of the town was in government hands again. Much of the population – estimated 50,000 people – fled towards the Turkish border, with regime forces in hot pursuit: the majority of defectors and hundreds of civilians were never seen again.

The situation in Ma'arat an-Numaan developed in similar fashion: the Army unit there refused to open fire at protesters and the regime reacted by deploying the 556th SF Regiment with the help of Mi-8 helicopters, which subsequently attacked protesters and mutineers with unguided rockets. It was in the course of the ensuing street battles that the insurgents claimed the first SyAAF Mi-8 helicopter as shot down on 10 June 2011.

Similar scenes were taking place in Homs and Hama: parts of the 68th Brigade (7th ID) mutinied and the unit was withdrawn from the city. The majority of officers and other ranks that deserted fled in the direction of Idlib Province. Parts of the 67th Armoured Brigade in Homs then defected too – taking with them at least one operational T-55 MBT plus a cache of machine guns and RPG-7s (anti-tank rocket propelled grenades) – to join insurgent groups in Rastan and Talbiseh. In both cases, the government reacted by launching a manhunt with the help of Mi-8/17 helicopters and special forces. However, this operation was not as successful as the one in Idlib: still under the impression of news related to Hamza al-Khatib, on 10 June 2011, defectors in Rastan announced establishment of the 1st Free Brigade and their intention to resist attacks by the government. A day later, they claimed two SyAAF helicopters as shot down in the Talbiseh area.

4

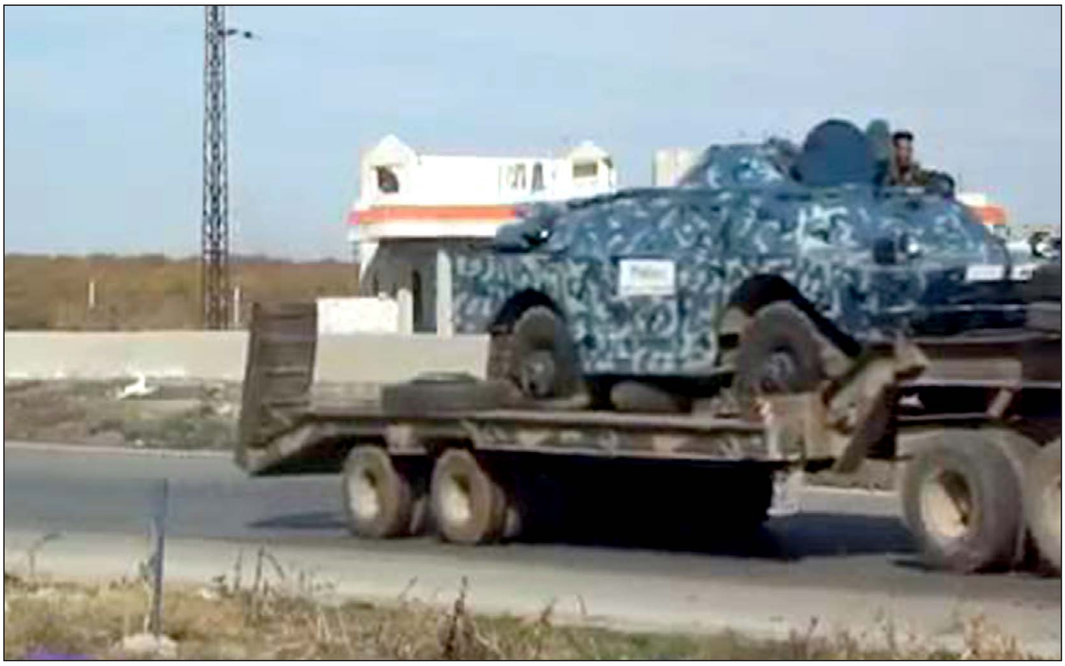
SPREAD OF THE INSURGENCY

Massacres of protesters and atrocities against the civilian population by government forces finally began prompting some diplomatic pressure against the government in Damascus during mid-June 2011.[1] However, insisting on the version of events including 'foreign conspiracy', President Assad only reacted with orders for further – and ever more brutal – crackdowns. Obviously, the spate of defections from the SyAA during May and June 2011 did have its impacts in so far that the government was forced to realise it was lacking enough loyal and reliable military forces to establish a permanent presence in all of the country. Indeed, it was lacking the detention facilities necessary to keep dozens of thousands of detainees arrested and forces necessary to keep most of the Army locked within its barracks. Correspondingly, most subsequent raids were of rather short duration: loyalist forces would drive through a village, town or neighbourhood, arrest whoever they could catch, summarily execute a few blacklisted persons, and then loot homes and shops. However, none of the involved units could stay in the same place for longer than two or three days before they would receive orders to raid another locality. Correspondingly, not only such hotspots as Dera'a or Rastan, but also large parts of Damascus, Homs, Hama, Aleppo and Lattakia saw no government presence for days, in turn enabling the opposition to recover, then improve its organisation and spread its influence. During late June and through July, this resulted not only in a wave of the biggest demonstrations in the history of the country, but also a paralysed economy. After the governor of Hama was forced out of the city, well over 200,000 participated in the 'Friday of Lost Legitimacy' protest on 24 June 2011, when the first large-scale protests also took place in central Damascus. Southern and eastern Aleppo experienced a series of protests a week later, when up to 100,000 participated in about two dozen demonstrations organised in different districts of that city. During July, several huge demonstrations – some including between 600,000 and 750,000 – took place in Hama and Lattakia, while an entire wave of mass demonstrations swept through all of southern and eastern Damascus. Similarly, between 200,000 and 350,000 were regularly protesting in Dayr az-Zawr.

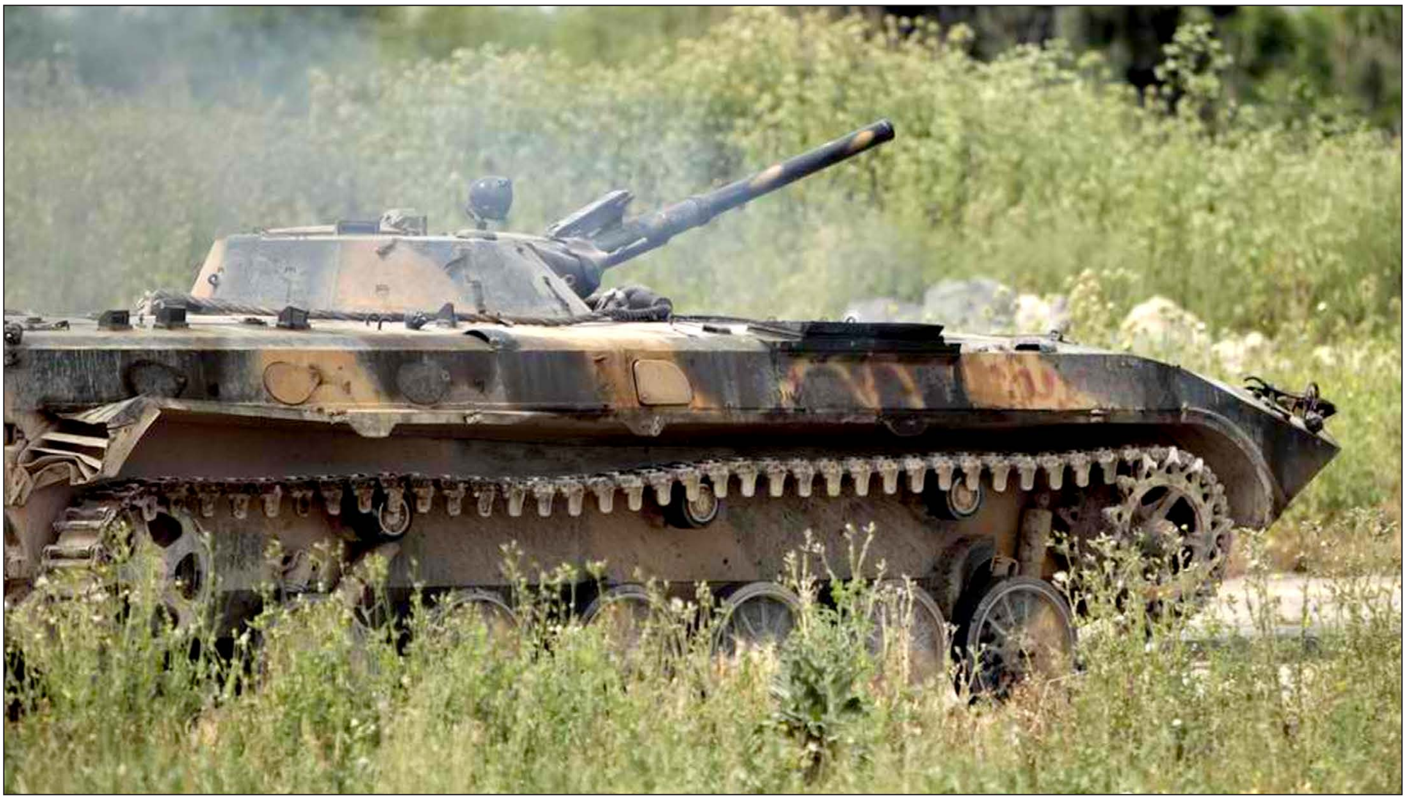
While continuing the crackdown, the government did solve a part of its problems through releasing thousands of political prisoners. Although most of these were presented in the media as attempts at reconciliation, what was little-known at that time is that very few of the released detainees were activists and oppositionals involved in protests in 2011: the majority were members of the Moslem Brotherhood and various other Islamists held for years.

RAMADAN MASSACRE

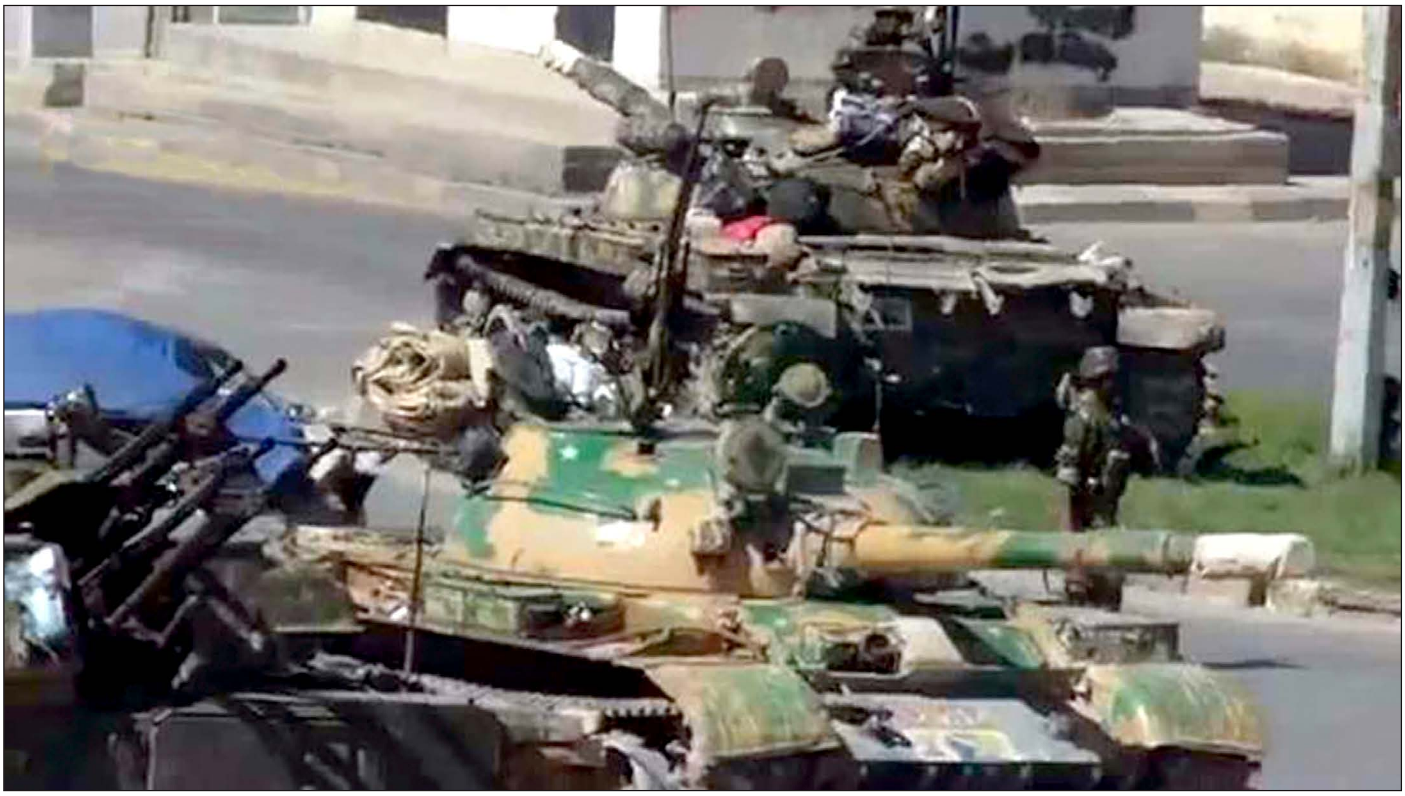
With the nearing of the holy month of Ramadan, the opposition further intensified protests during August 2011, hoping this might reach the level where the government would finally give up.



Many of the military's attacks on protests were launched under the guise of 'police operations against terrorists'. Because of this, dozens of SyAA BRDM-2 armoured scout cars – including this example photographed in November 2011 – received quasi-police camouflage patterns and corresponding inscriptions. (via R. S.)



A SyAA BMP-1 underway outside Homs. As usual, the camouflage pattern – consisting of the original green colour in which the vehicle was delivered with large splotches of orange-sand applied in Syria – is badly worn out. Unit insignia and vehicle serials are usually applied on glacis plate and rear entry doors. (via R. S.)



This still from a video shows a typical army checkpoint in Homs, sometime during the second half of 2011, including two T-55s and a ZSU-23-4 Shilka, positioned so as to control the surrounding area in two directions. (via M.Z.)

Before long it became perfectly clear that such hopes were naive. On the evening of 24 July, a mutiny erupted at the Military college in Homs. Precise details about this remain largely unknown because none of the several hundreds of involved instructors and cadets survived. However, the situation was serious enough for the government to concentrate two SF regiments supported by elements of two armoured brigades and helicopter gunships to assault the compound. Whoever survived this attack was summarily executed.

Simultaneously, a major crisis erupted in Dayr az-Zawr, where the newly appointed governor was forced out of the city by protesters, while parts of the 137th Armoured Brigade (17th

Major Manhal Aslaadaa defected with a number of other soldiers from the 137th Mechanised Brigade, together with one of the BMP-1s under his command, to the insurgent side in Dayr az-Zawr in August 2011. (FSyA release)

AD) mutinied and clashed with militias of the AFI and SMA. The government reacted on 30 July, deploying all available mechanised forces in Homs and Hama to launch offensives on these cities, both of which were put under siege, with electricity, food and water supplies cut off. All still small in size and only lightly armed, local insurgent groups were largely overwhelmed by this onslaught. In sporadic ambushes they claimed the destruction of about a dozen armoured vehicles and several passenger buses carrying government troops. For example, the Commando Battalion of the Khalid Ibn al-Wallid Brigade FSyA ambushed a convoy of about 30 vehicles underway inside Homs, late on 30 July, killing and injuring nearly 50 troops. In Hama, the FSyA ambushed several of the advancing convoys, destroying a number of armoured vehicles and assassinating even Brigadier General Dargham, the director of SMA in that city. Rallying his remaining troops, the CO 11th AD, Major General Zaitoun, eventually managed to overpower the resistance by 7 August, although not without support from heliborne commandos and at least 12 Mi-8s deployed as gunships. Eventually, the insurgents were forced to withdraw. Once free to operate, the military and intelligence operatives conducted two weeks of house-to-house raids, arresting thousands and summarily executing up to 1,200 people, which is why this period became known as the 'Ramadan Massacre'.

A similar operation was undertaken in Dayr az-Zawr, where demonstrations turned into rioting that left most of the police stations looted and burned out on 31 July. President Assad removed Minister of Defence Ali Habib – who was personally in charge of operations in that city – and replaced him with Lieutenant General Abdullah Dawoud Rajiha, and then ordered the military into action. On 6 August the 137th Mechanised Brigade (17th AD) – corseted by a full brigade of PSD – deployed three columns to launch an advance into Dayr az-Zawr. While one of the columns was ambushed by insurgents and forced to retreat in disarray, another quickly changed sides and joined the protesters – together with all of its heavy armament. Only the third column – consisting of the cadre of the 119th Mechanised Battalion – managed to reach downtown and the Military Hospitals. Once there, this unit was encircled by insurgents and fiercely attacked, suffering more than 200 casualties. The government's hold on Dayr az-Zawr never recovered from this blow. Although survivors of the 119th Battalion were saved by heliborne special forces, supported by air strikes flown by SyAAF MiG-21s, on the morning of 10 August 2011, and this force remained in control of the downtown and the air base outside of the city, the eastern side of Dayr az-Zawr was under insurgent control.

FREE SYRIAN ARMY

Hopes that the holy month of Ramadan might prove a turning point and the regime could be overthrown peacefully were practically smashed by the terror of government forces. Some of the Syrian activists subsequently adapted their tactics and resorted to 'flash protests': short duration, small scale demonstrations organised primarily by night, which swiftly dispersed before being continued – shortly after – by new gatherings in another place. Large-scale protesting was continued only in places with a lesser presence of the military, like Idlib, Raqqa, and especially Dayr az-Zawr. Other activists began joining thousands of military deserters and – concluding that the government and its die-hard supporters remained unimpressed by protests and mass defections and were unlikely to give up – began calling for an organised armed response. One of the results was the establishment of the Free Syrian Army (FSyA), announced to the public on 29 July 2011.

The original officer cadre of the FSyA envisaged it as an apolitical, non-sectarian and non-religious insurgent force for the protection of civilian protests, without political goals other than the removal of Assad's government. Hundreds of its early

These soldiers defected to the FSyA together with their BMP-1 amid heavy fighting in the Khalidya District of Homs in late 2011. (SNN) operations were aimed at government forces threatening protesters or involved in attacks on them, or in the process of deploying to places of protest.

The FSyA experienced a period of significant expansion during the second half of 2011, when a steady flow of Army defectors enabled the establishment of dozens of new units. By September 2011, armed groups that declared themselves the FSyA were operating in all Syrian provinces, but foremost in Aleppo and Idlib, Homs, Hama, and Rastan in the centre of the country, Dera'a and Houran in the south, Dayr az-Zawr and al-Bukamal in the east. Homs and Rastan were major areas of recruitment and defections there reached proportions where the FSyA established its first two 'brigades' – named the Khalid Ibn al-Wallid and Sallahaddin Victorye. However, many defectors preferred to join their families instead of the insurgency, and most brought only light infantry weapons – primarily AK-47s, DShK machine guns and RPG-7s – with them. Smaller numbers of various assault rifles of Western origin were acquired via Lebanon and Libya (some even from purchased from Shabiha smuglers). Correspondingly, for most of 2011 the insurgency lacked heavier weapons.

During mid-September 2011, the government was busy sweeping the Jabal az-Zawiya area of Idlib – where dozens of defectors were killed and many Sunni villages depopulated – Damascus and Rif Dimashq (where even Christians came under attack when they dared protesting). Towards the end of that month, different task forces then converged on Rastan, which came under renewed attack on 28 September. The local FSyA battalions destroyed a handful of vehicles and caused up to 50 casualties before being forced to withdraw in the direction of Homs. By mid-October, the insurgents established themselves in de-facto control of several districts of the latter city, where they were joined by additional defectors (including around 100 officers and soldiers of the 60th and 67th Brigades). Understanding that it was facing a popular uprising, the government scrambled detachments from the 4th AD, intelligence agencies and Shabiha to save what was left of the 10th Armoured Division. However, its next major operation, launched on 23 October, encountered fierce resistance from the Khalid Ibn al-Wallid Brigade. This not only destroyed a number of BMP-1 IFVs and BTR-60 APCs, and caused over 250 casualties, but also prompted another wave of defections and eventually brought the Bab Amr and Khalidya districts under their control.

The near-simultaneous crisis in Homs, intensive fighting in Rastan, Qusayr, Dayr az-Zawr and al-Boukamal (in eastern Syria) that lasted for days, continuous defections from Army units, the emergence of the FSyA and numerous local self-defence militias all over the country apparently overwhelmed the government. Instead of launching the usual raids and sweeps, the loyalists put Bab Amr and Khalidya districts under siege: they were occasionally shelled by artillery and – on 30 October – even experienced the first air strike flown by a pair of Su-22s – but otherwise loyalists troops limited their activity to driving MBTs and IFVs up and down the main streets, randomly shooting around. It was only in mid-November 2011 – after the entire 138th Brigade from the 4th AD was deployed from Tartous to Homs and Rastan – that large-scale assaults were launched. Parts of the Khalid Ibn al-Wallid Brigade were encircled and suffered heavy losses, including at least 16 KIA – amongst them some of the officers that had founded the FSyA – and 50 wounded, but Bab Amr and Khalidya remained under insurgent control.

BATTLES OF ZABADANI AND HOMS

Following weeks of anti-government protests, on 7 January 2012 elements of the 56th Brigade (10th AD) corseted by parts of the 4th AD and intelligence operatives were deployed to assault Zabadani, a town some 30 kilometres north of Damascus and very close to the border with Lebanon, surrounded by high mountains – and the HQ of the II Corps SyAA. This operation backfired, because parts of the 56th Brigade defected and turned their weapons against the loyalists. The government regrouped and launched a new counterattack on 13 January, but this was beaten back with a loss of four T-55s, at least one BMP-1 and about 50 casualties. After both sides agreed to a ceasefire, on 18 January 2012, Zabadani became the first Syrian town under insurgent control.

Although agreeing to withdraw the military, Bashar al-Assad was not prepared to accept the loss of Zabadani. During the second half of January a new task force was created from a battalion of the 4th AD reinforced by company-sized detachments from different units of the 81st Brigade (3rd AD), 62nd Brigade (10th Division), and 7th Division, before launching a new attack on 4 February. This time, the loyalist commanders were extremely careful: detachments from regular Army units were not left to approach Zabadani, but tasked with providing artillery support, outer cordon and clearing the restive valley around the town. After

A gathering of Army defectors-cum-insurgents in the Zabadani area in January 2012. (FSyA release)

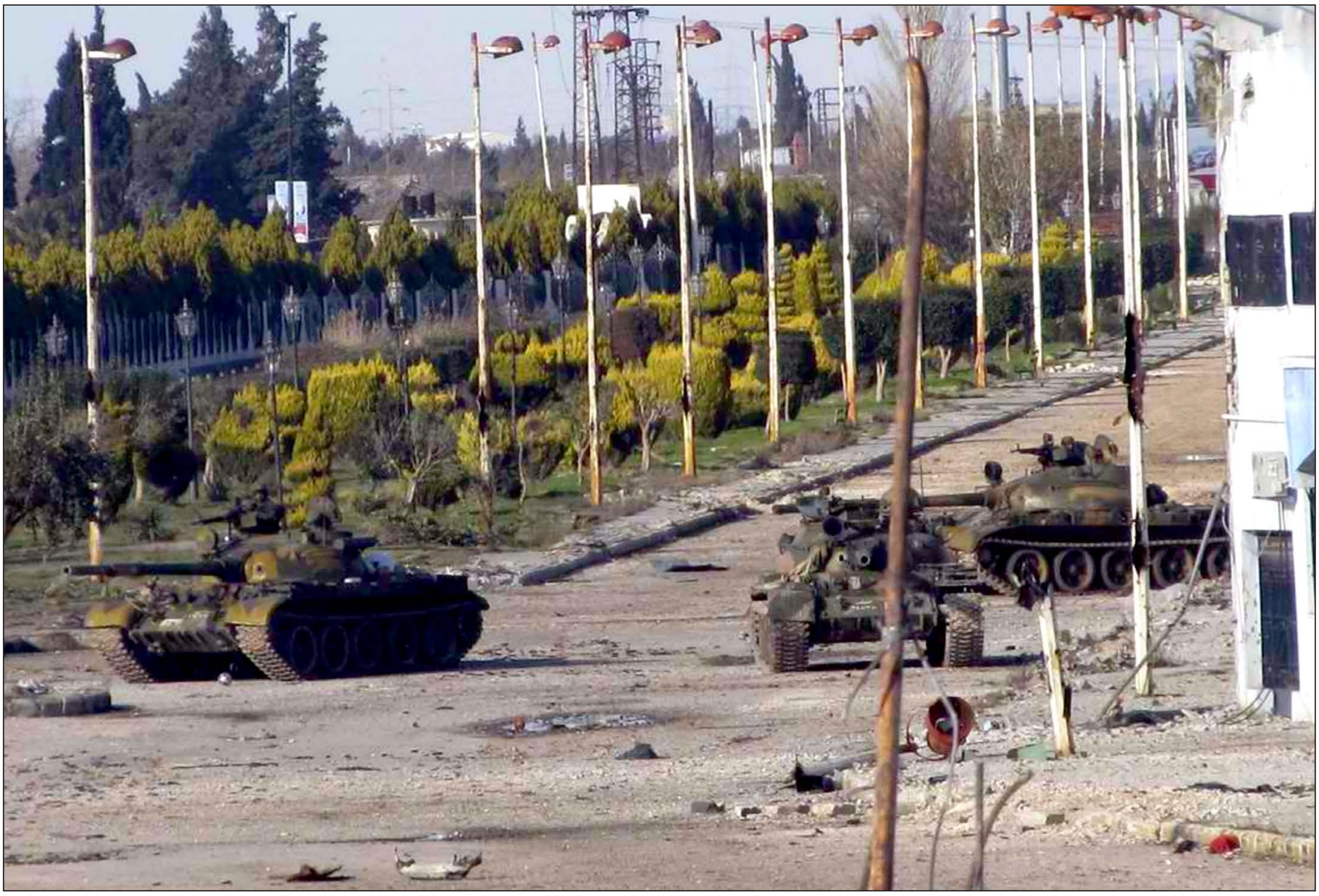
A BMP-1 knocked out during the second attack on Zabadani on 13 January 2013. (FSyA release)

two days of bombardment, the 4th AD reinforced by at least one SF regiment launched its assault. The fighting was bitter and it took the loyalists five days to overcome insurgent resistance in Madaya and reach Zabadani on 11 February, before continuing with – the now usual – house-to-house raids that lasted several days. Although the majority of insurgents managed to escape into the nearby hills, hundreds were arrested and many summarily executed.

While still fighting for Zabadani, the government attempted to crush the uprising in Homs. What was left of locally deployed elements of the 11th and 18th Divisions were reinforced by a battalion each from the 104th and 105th Brigades RGB, the 42nd and 138th Brigades of the 4th AD, the 53rd and 556th SF Regiments of the 14th Division, and the 45th, 54th and 555th SF Regiments of the 15th Division. Under the command of Major General al-Ali of the RGD, this nearly corps-sized force first encircled the city before cutting off all water supplies, electricity and communications on 3 February. While other units dug a two-metre-deep trench around districts held by the insurgents, and shelled Bab Amr and Khalidya, the 4th AD established a large number of checkpoints at which any male civilian between 14 and 60 was arrested. The Farouq Brigade FSyA reacted with a series of attacks on checkpoints and bases, causing dozens of casualties, and managing to hold the loyalists at bay for days, but in return the shelling caused hundreds of civilian and insurgent casualties, including one of the leading commanders, Colonel Ahmed Jumrek, killed on 10 February.

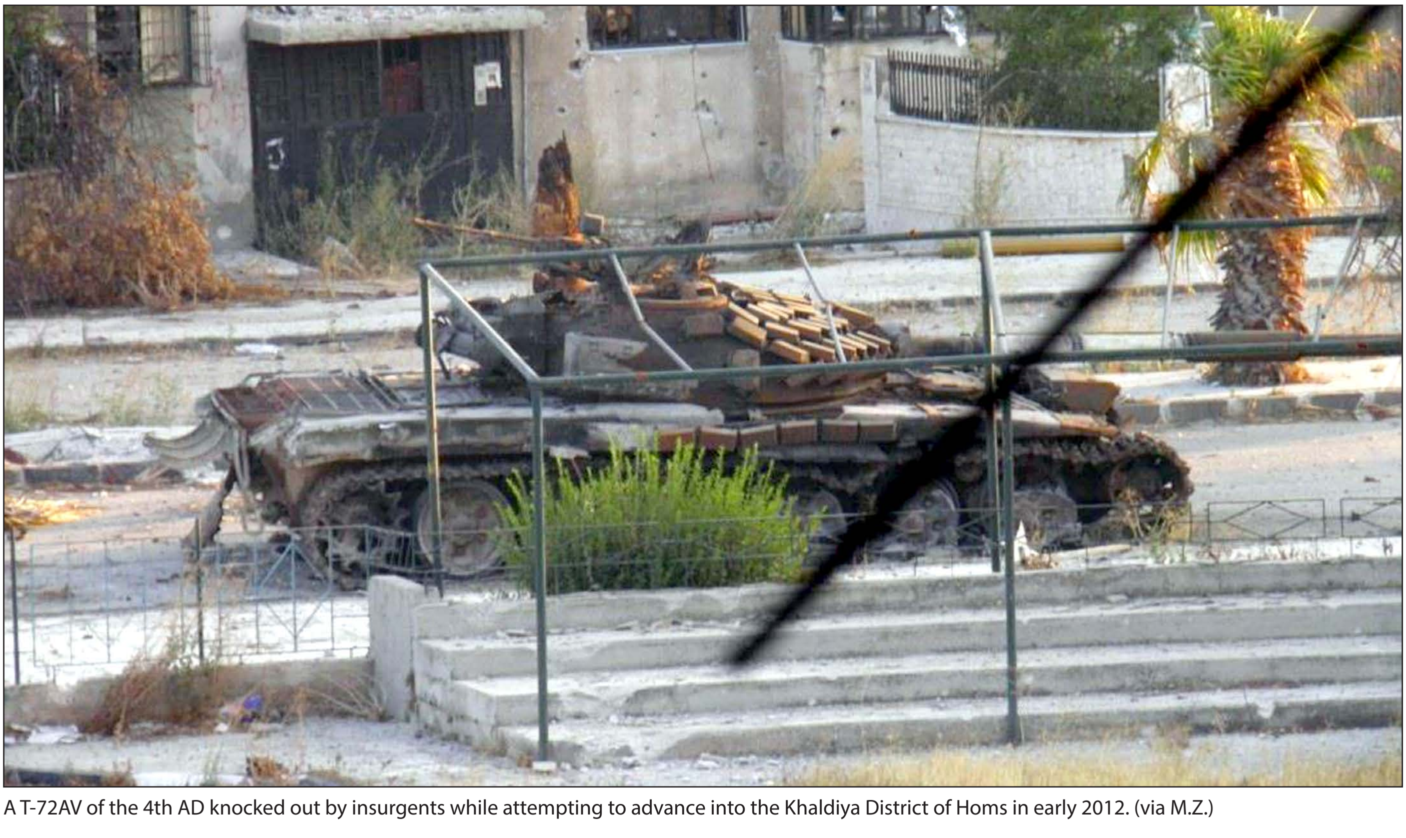
On 13 February, the 555th SF regiment supported by the 404th Armoured Regiment (both from the 15th Division) launched the first assault on Bab Amr. Lacking training and experience in operations in complicated urban setting, the loyalists were easily beaten back with a loss of at least four BMP-1s and a number

This T-55 from the 7th AD was photographed on the outskirts of Zabadani in February 2013. (via R. S.)

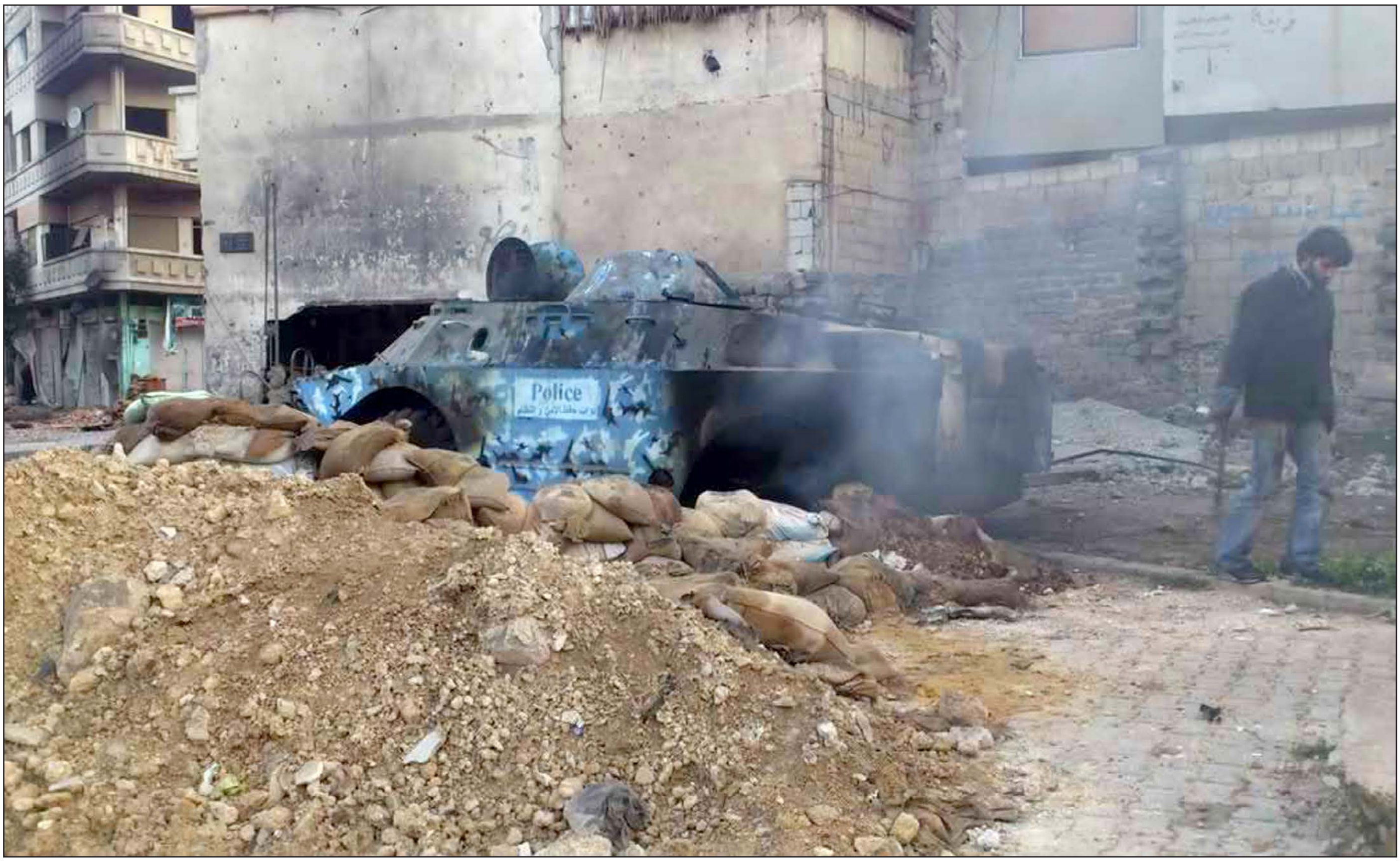


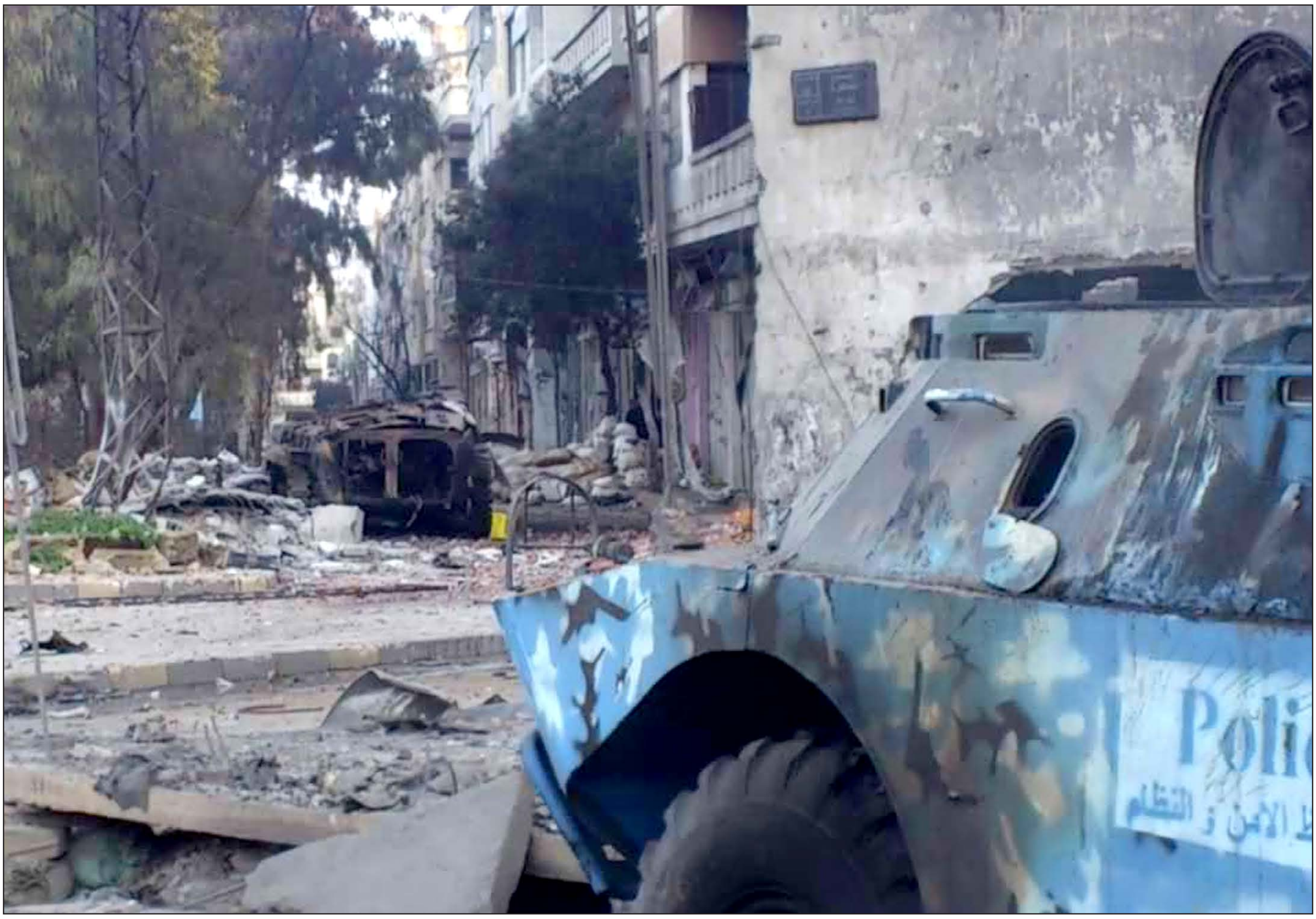
A platoon of three T-62Ms on the streets of Bab Amr District of Homs in February 2012. (SNN)

of killed. While licking wounds, and adding the 35th and 127th SF regiments, and the 85th Brigade (10th Division) to the concentration of forces in Homs, the government continued shelling Bab Amr for several days longer before the next attempt. On 23 February its units pushed into the Jobar area near Bab Amr, though not without suffering significant losses in the process. However, hardest hit was the local population and a large number

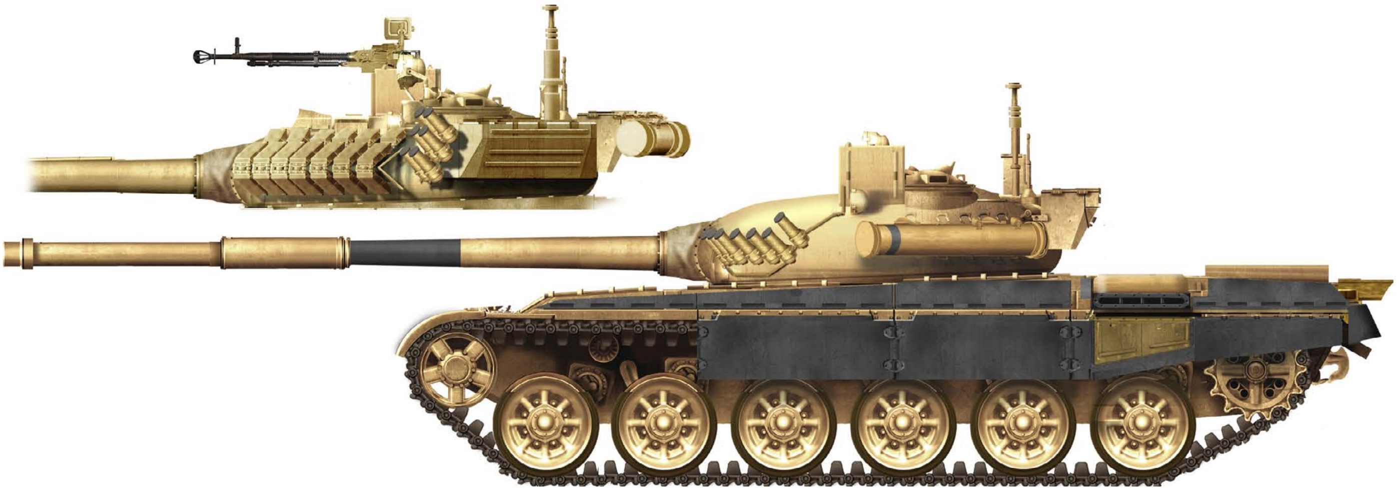


A T-72AV of the 4th AD knocked out by insurgents while attempting to advance into the Khaldiya District of Homs in early 2012. (via M.Z.)

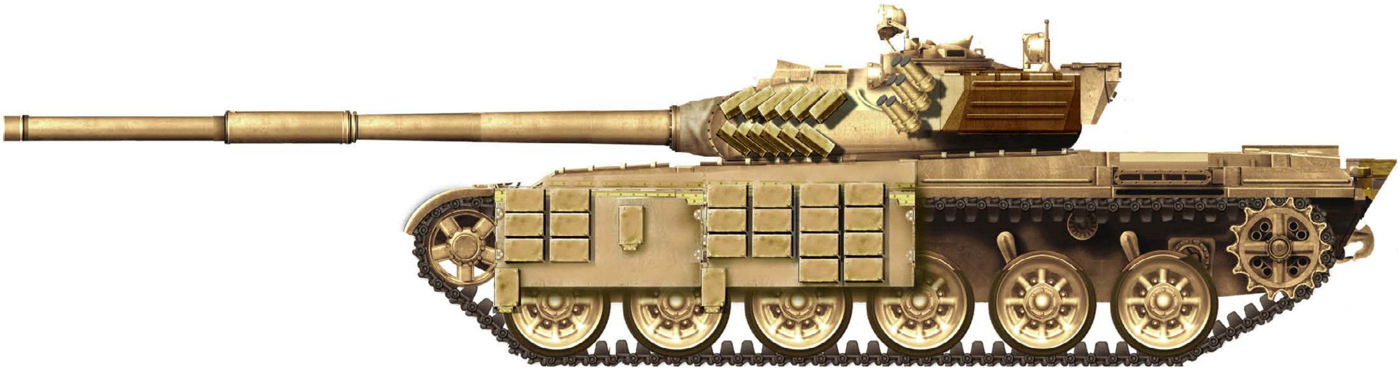




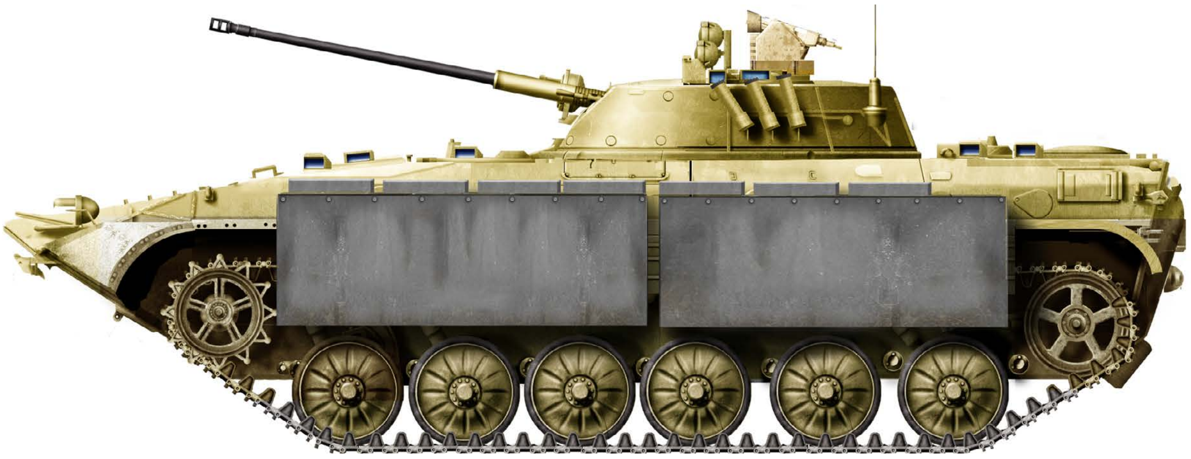
This BRDM-2 of the SyAA, but wearing police makings, was knocked out together with at least one BMP-1 during an insurgent attack on a government checkpoint at Cairo Square in Homs in February 2012. (SNN)



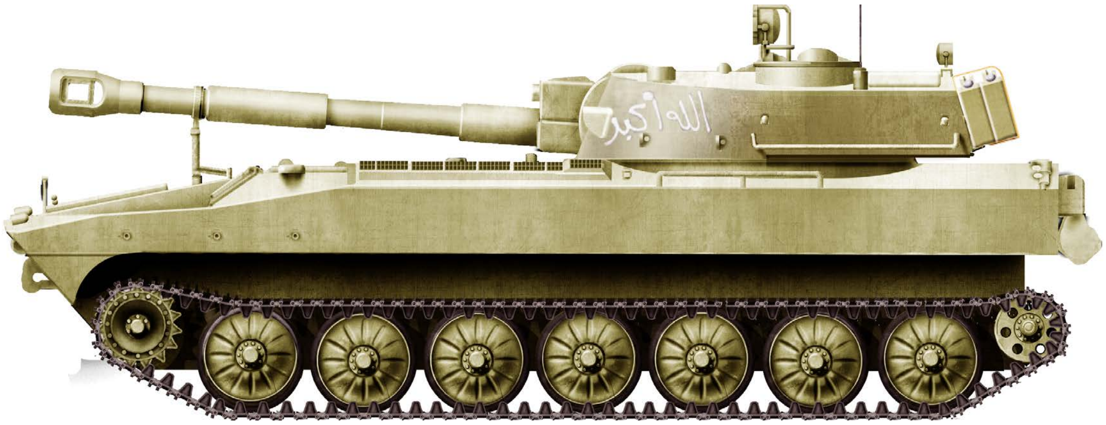
Theoretically the most powerful Syrian tanks of 2011–2013 were 124 T-72M1s and T-72AVs, upgraded in 1998–2000 by the Italian company Galileo Avionica (a wholly-owned subsidiary of Finmeccanica) through the installation of the Galileo Tank Universal Reconfiguration Modular System (for) T-series tank fire-control system – TURMS-T. In addition to a stabilised sight for the gunner and commander, infrared cameras and a new turret-management computer, this improved the gun stabilisation and accuracy, and added the capability to fire the Russian-made 9K119 Reflex (ASCC/NATO codename 'AT-11 Sniper') ATGMs through their 125mm main guns. The mass of T-72 TURMS-Ts were painted in dark sand overall, identifying them as assigned to the Republican Guards Division: very few retained their explosive reactive armour (shown inset). (Artwork by David Bocquelet)



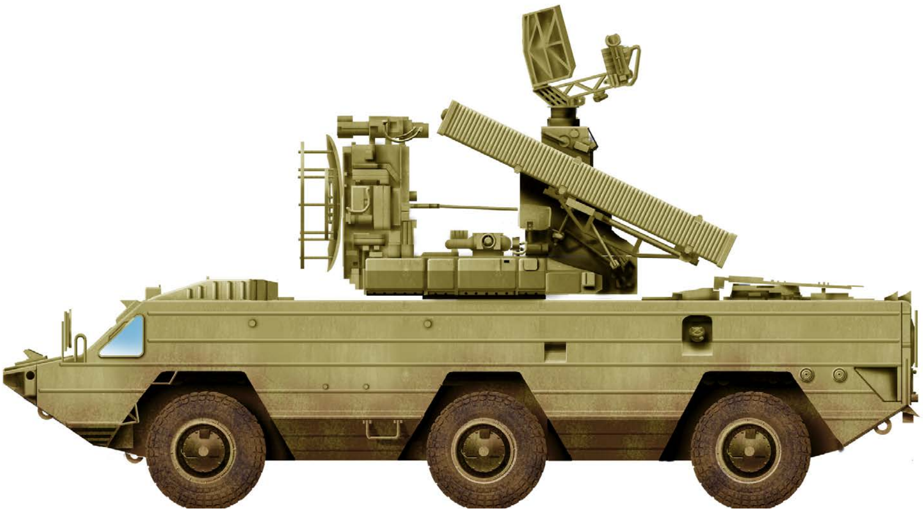
Because the number of T-72 TURMS-T remained relatively limited and was rapidly reduced by combat attrition during the protracted battles in southern Damascus of 2012–2013, the majority of T-72s assigned to both the RGD and 4th AD were T-72AVs, recognisable by their explosive reactive armour (ERA). Those of the Republican Guards Division were all painted in dark sand overall, as shown here. Their ERA bricks saved them from many hits by RPG-7 and RPG-29 rocket propelled grenades: the example here, seen in Harasta in 2013, survived at least two hits into its left side. Nevertheless, the combination of losses and the incompetence of loyalist commanders prompted the IRGC-QF to take most of the T-72s away from the RGD and reassign them to Hezbollah units deployed in Syria in early 2014. (Artwork by David Bocquelet)



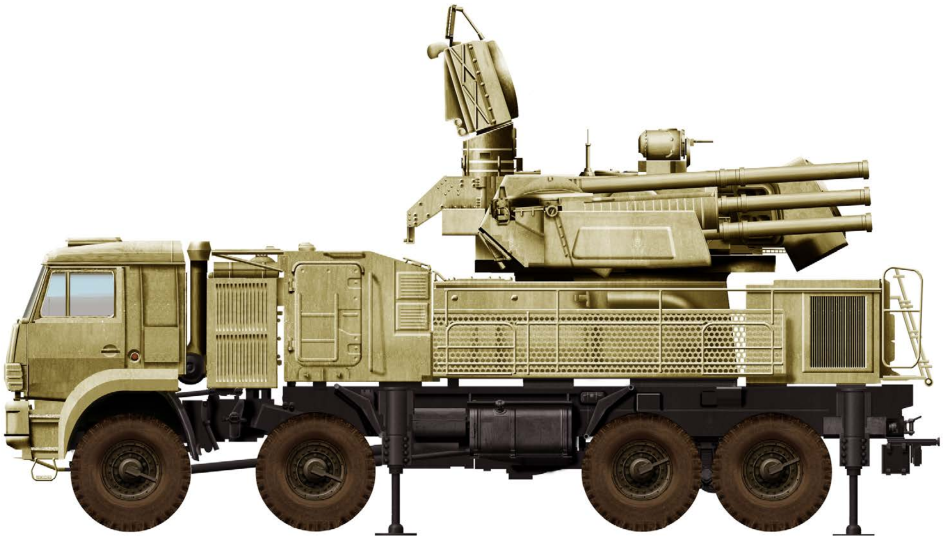
Syria acquired only about 100 BMP-2s, starting in 1987, and all of these were assigned to the 104th and 106th Brigades, RGD (though none to the T-72 TURSM-T-equipped 105th Brigade). Equipped with the stabilised 2A42 30mm automatic cannon, the BMP-2 proved quite a successful design – even in urban combat. However, the preference of RGD commanders to repeatedly deploy them and T-72s in 'high-speed raids' into densely built-up Darayya without infantry support, eventually resulted in heavy losses. By 2013, losses were heavy to the level where they became a rare sight, and the mass of infantry serving with the RGD consisted of IRGC-QF-controlled units of Iraqi Shi'a and Afghan Hazaras. In turn, the few surviving BMP-2s received improvised rubber skirts or metal mesh for better flank protection from RPGs. (Artwork by David Bocquelet)



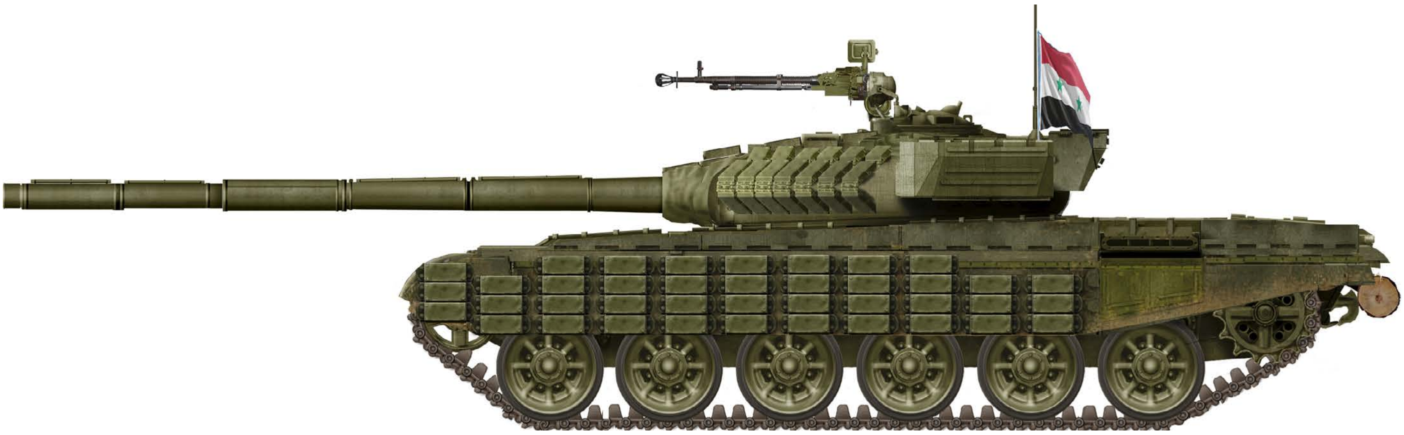
Syria acquired a total of about 400 2S1 'Gvozdika' ('Carnation') self-propelled 122mm howitzers, and these were assigned to the artillery regiments of every armoured division. The RGD had a full Artillery Brigade of three artillery battalions, each with two batteries of six 2S1s and one battery of six 2S3 Akatsiya ('Carnation') self-propelled 152mm howitzers. All RGD-operated examples were painted in sand overall (which rapidly bleached due to the sun and dust), and wore no other insignia. They saw intensive deployment in fighting for southern Damascus, through 2012 and 2013, when this example was captured intact by insurgents of Darayya. (Artwork by David Bocquelet)



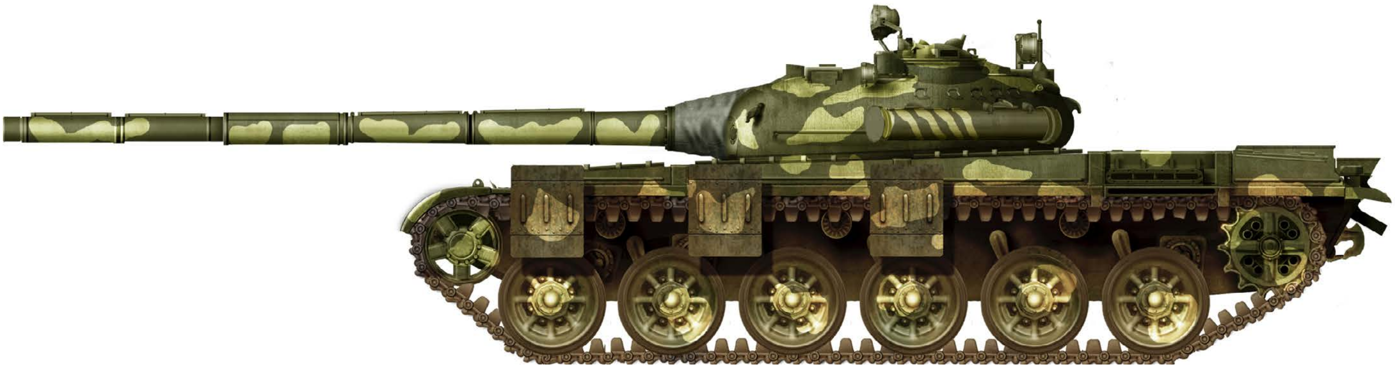
The 'special' status of the RGD was clear from this division being one of only two in Syria to include a reinforced air defence element. Responsible for protection of the Presidential Palace in north-western Damascus, the 112th Air Defence Regiment was equipped with 9K33M Osa-AK (ASCC/NATO codename 'SA-8 Gecko') self-propelled SAM-systems. Ironically, they saw no operational service with their original owners: in 2012, SA-8s of the 4th AD were all captured by insurgents of Jaysh al-Islam and then deployed against the SyAAF, while IRGC-QF's attempt to transfer an SA-8 battery of the RGD to Hezbollah was spoiled by an Israeli air strike on 31 January 2013. While SA-8s operated by the 4th AD wore a camouflage pattern in dark sand over their green overall livery, examples operated by the RGD were all painted in sand overall. (Artwork by David Bocquelet)



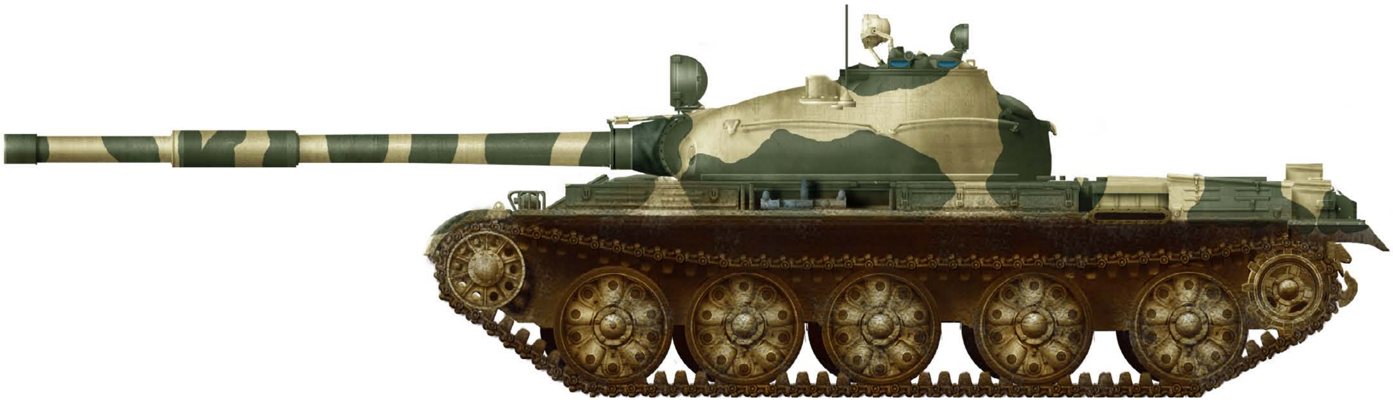
As well as SA-8s, as of 2011–2012, the 112th Air Defence Regiment was the only unit in Syria to operate the – then-brand-new – Pantsyr-S1 air defence systems (ASCC/NATO codename 'SA-22 Greyhound'). The first batch of 28 was acquired in 2006, with financial help from Tehran, and initially they served for protection of the Presidential Palace. They were all painted in sand overall – a livery that was often enhanced through the addition of very different camouflage patterns from 2014. Seeing no action during the first years of the war, by 2013, they were reassigned to the Air Defence Department of the SyAAF and saw heavy utilisation in attempts to defend major military facilities from Israeli, US, British, and French airstrikes. (Artwork by David Bocquelet)



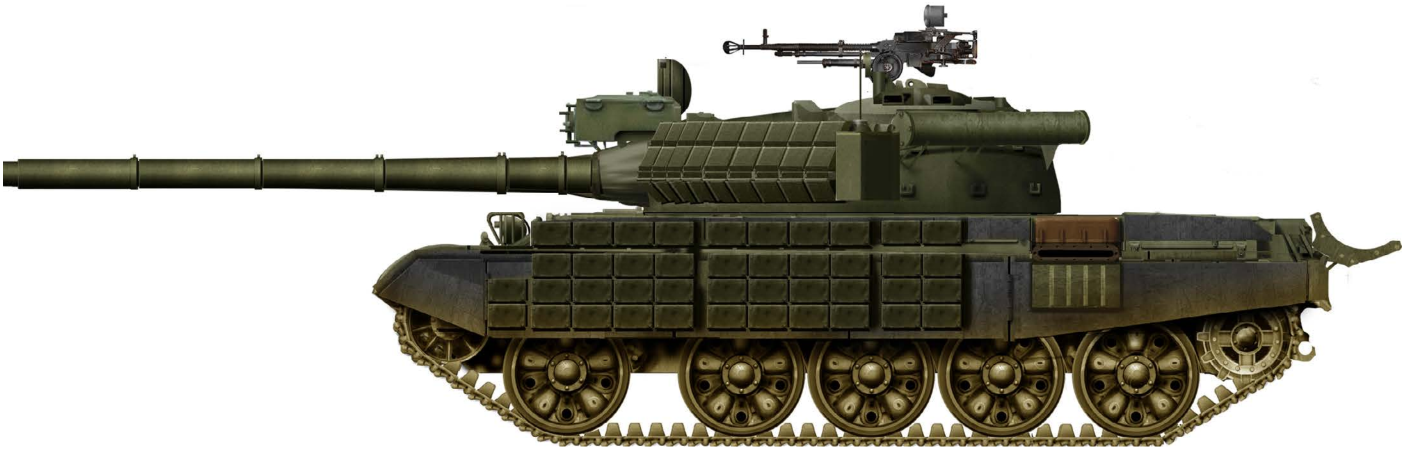
In similar fashion to the RGD being subordinated directly to Bashar al-Assad, the 4th Armoured Division was subordinated directly to his brother Maher al-Assad – even if, officially, he 'only' commanded one of its brigades. T-72AVs (also known as 'T-74' in Syria before the war) assigned to the 4th AD were recognisable by their overall dark olive green colour and like those of the RGD, they wore no other markings. Unlike the RGD, which – except for its 104th Brigade – always remained in the Damascus area, elements of the 4th AD were rapidly broken-down and distributed in company-sized detachments all over Syria, with the task of corseting about 20 task forces created in 2011–2012 through redistribution of elements from different Syrian Arab Army units. While preventing large-scale defections, this resulted in the 4th AD not reappearing as a coherent unit before 2015. (Artwork by David Bocquelet)



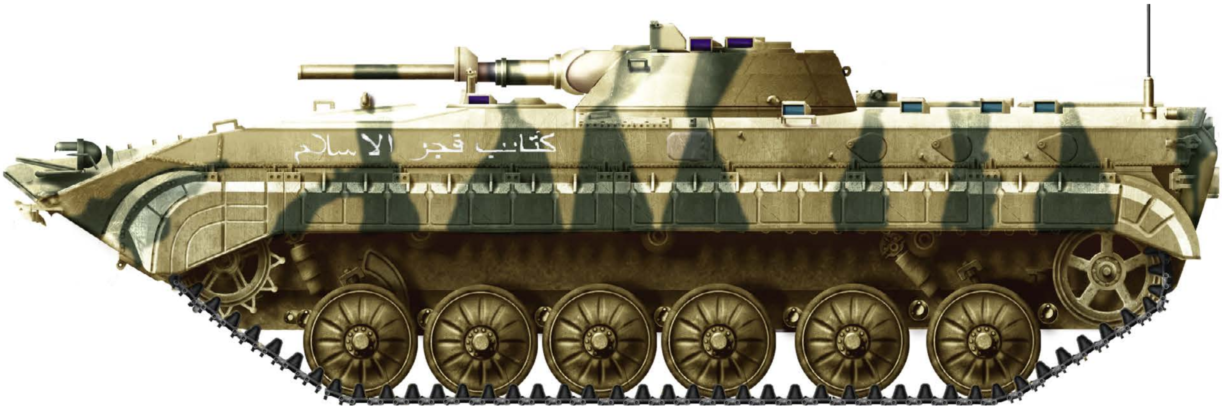
As of 2011–2012, about 800 older T-72s and T-72M1s formed the backbone of the Syrian Arab Army's armoured formations. The mass was rushed into action by elements of the 1st, 3rd, 9th, and 10th Armoured Divisions, but their losses – and defections of their crews – eventually reached such proportions that by 2014 the IRGC-QF ordered all the surviving examples to be handed over to its formations. This was one of between 12 and 15 mounts of the 34th Armoured Brigade, captured by insurgents of the Farouq Brigade inside the military base of Halfaya, in Hama Province, on 17 December 2012. As usual for Syrian-operated T-72s, it received a random camouflage pattern in dark sand over its dark green overall livery. While SyAA units used to apply their tactical insignia low on the glacis (together with 'registration number', which usually began with the brigade-designation), and high on the rear bulkhead, those of the 34th Armoured Brigade remain unknown. (Artwork by David Bocquelet)



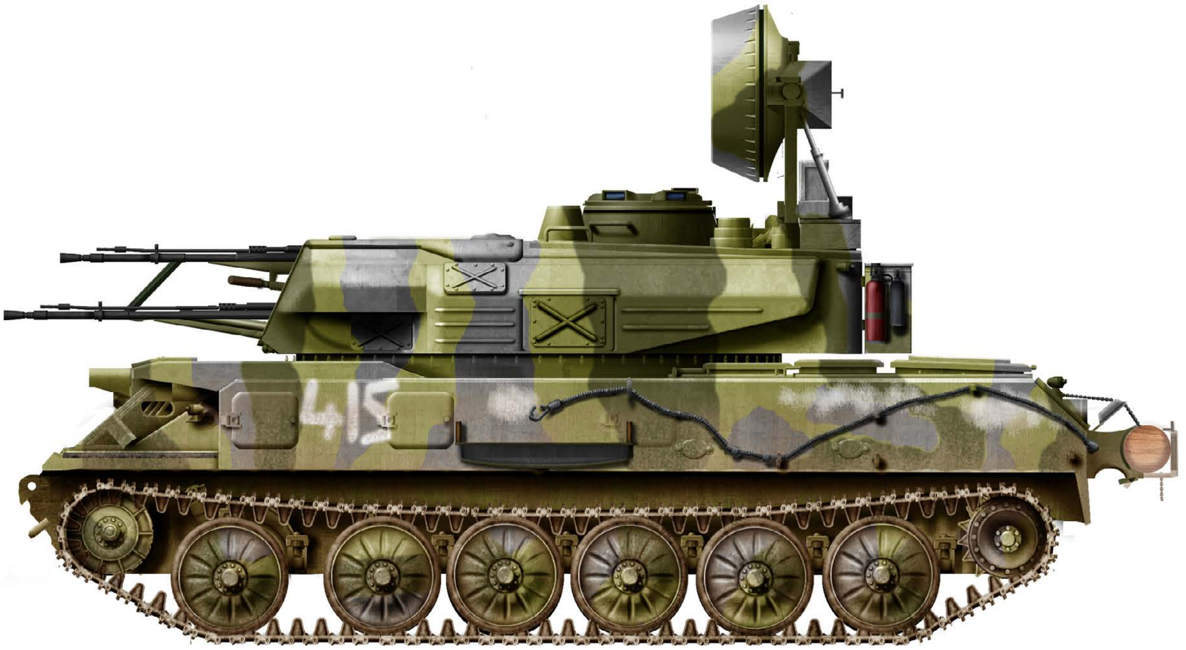
While Syria had operated large numbers of T-62s at earlier times, by 2011–2012 the mass of remaining examples was stored, and survivors were operated only by four brigades of the 11th Armoured Division. This unit was decimated by defections and in the fighting for Homs and ar-Rastan, and its last 'major' element – the cadre of the 67th Armoured Brigade – saw its last action in the Qalamoun Range of 2013. Others, like the example illustrated here, were captured by insurgents in northern Hama, and then deployed in Idlib and Aleppo provinces, where a few even fought tank-vs-tank engagements against vehicles operated by loyalist units in 2012 and 2013. Syrian T-62s were painted in many different patterns and colours, but the one shown here – consisting of the original dark green, with a camouflage pattern in large splotches of dark sand – was most widespread. (Artwork by David Bocquelet)



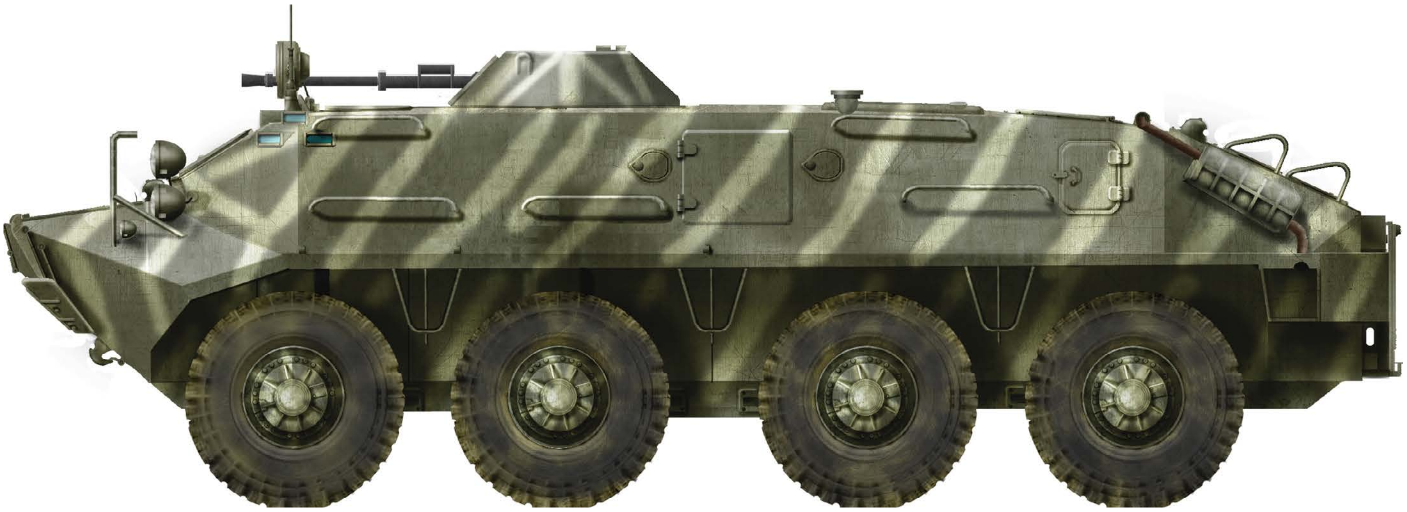
The primary MBT of SyAA mechanised formations as of 2011–2012 was the fleet of T-55AMVs: an upgraded variant of earlier T-55AMs, including a new engine, new radios, and a laser rangefinder, best recognised by the addition of ERA on the turret and the hull. This example was last seen while operated by the 5th (Mechanised) Infantry Division in the Dera'a area in April 2011 and is typical of the appearance of all vehicles of this variant available at the time. Ironically, the first T-55AMVs of the SyAA lost in the Syrian War belonged to elements of the 65th Armoured Brigade, which mutinied and fought a part of the 4th AD in an armoured battle in April 2011, prompting a furious reaction from loyalists. The mass of T-55AMVs was knocked out over the following two years, and they became a rare sight by early 2014. (Artwork by David Bocquelet)



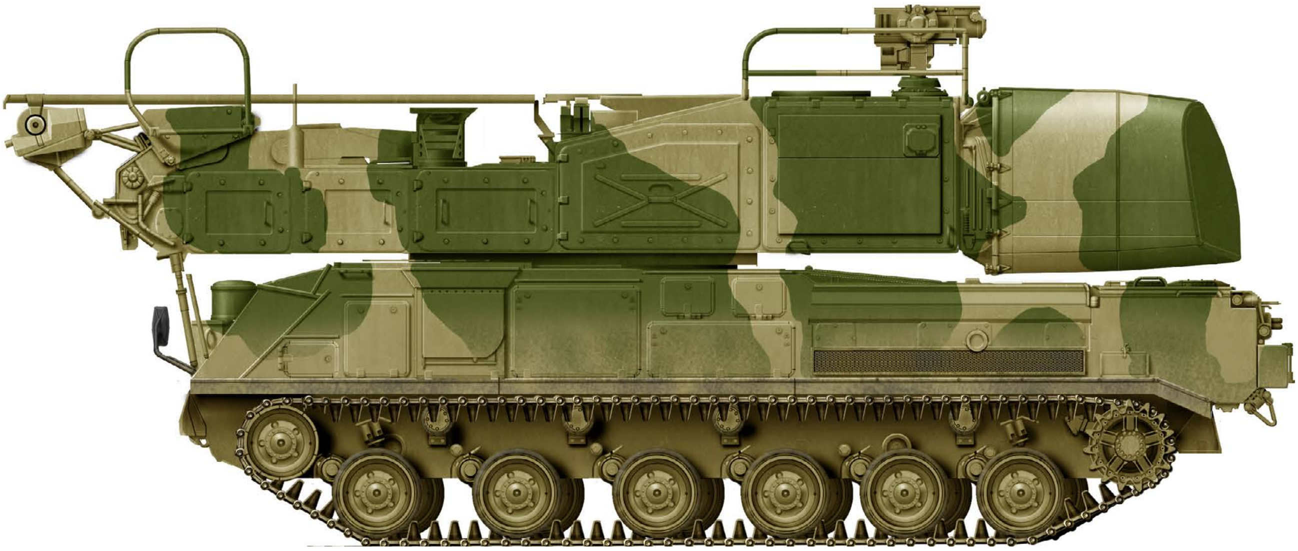
The standard infantry fighting vehicle of the Syrian Arab Army since the mid-1970s was the Soviet-designed BMP-1. Unsurprisingly, they saw widespread deployment all over the country, early during the war. Losses were heavy, not only due to defections, but mainly because of frequent deployment in combat in densely built-up areas, without sufficient infantry support. As indicated by the inscription in white on the hull side, this example was captured by insurgents of the 'Dawn of Islam Brigade' in Ma'arat an-Numaan in October 2012. Its camouflage consisted of wide stripes of dark sand applied atop of the original dark green livery. (Artwork by David Bocquelet)



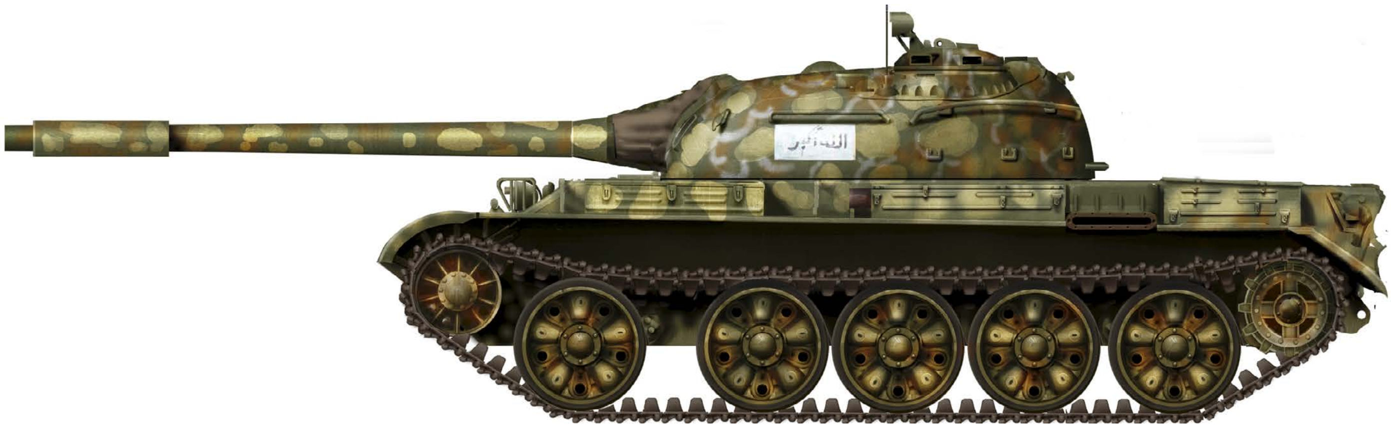
Each brigade of the Syrian Arab Army used to include a battery of four ZSU-23-4 'Shilka' self-propelled, four-barrel, radar-directed 23mm anti-aircraft guns. While proving highly effective during the October 1973 Arab-Israeli War, by 2011 they were obsolete and primarily deployed for fire-support. Most wore wide stripes of sand or yellow and grey atop of their original, dark green overall livery. Notably: some units used stencils for application of the dark yellow sand colour, so that all the splotches around the vehicles were exactly the same shape. This example received a 'turret number' applied crudely, with brush, on the hull side. (Artwork by David Bocquelet)



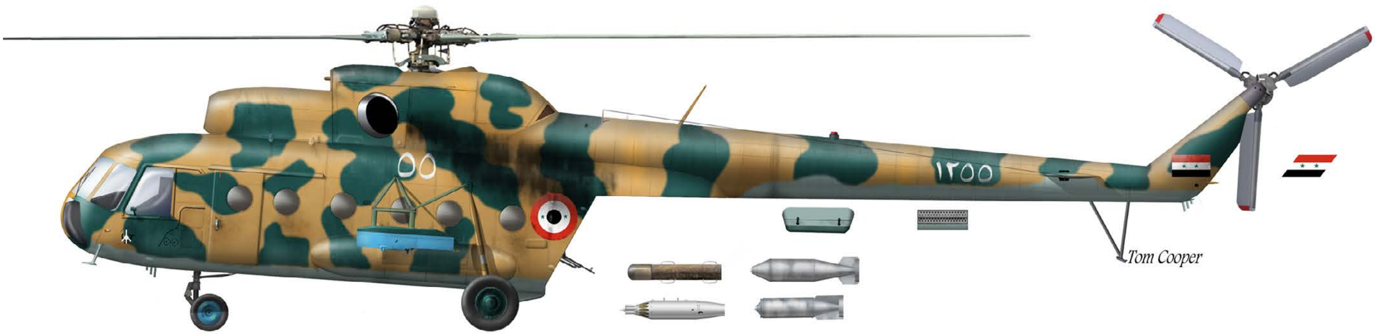
Between 1970 and 1975, Syria acquired 650 BTR-60PB wheeled armoured personnel carriers, and deployed them in its motorised infantry formations. Attrition was heavy, and thus most survivors were in storage as of 2011, when a handful were overhauled and painted in fake 'police' markings in an attempt to disguise the massive military involvement in suppressing protests. A number of others was captured by insurgents – including this example, found inside the garages of the Infantry School in Aleppo in December 2012: it still wore its original livery in dark green overall, with the camouflage pattern consisting of thin stripes in dark sand. (Artwork by David Bocquelet)



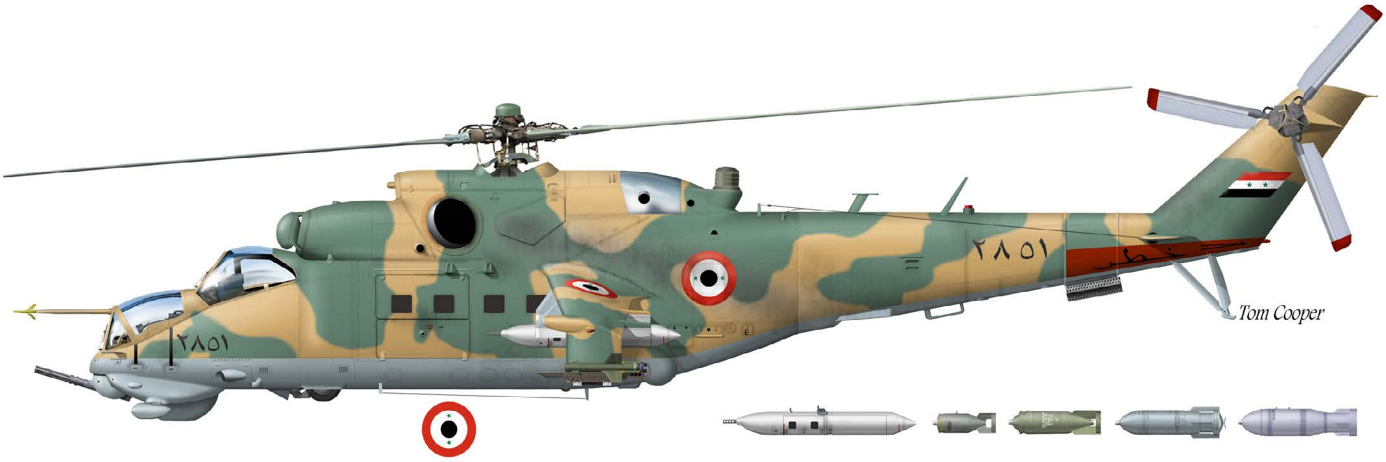
The most potent surface-to-air missile system in service with the Syrian Arab Air Defence Force as of 2011, was the Buk-M2E (ASCC/NATO codename 'SA-17 Grizzly'), eight batteries of which (each including two transporter erector launcher and radars and two transporter-erector-launchers) were acquired from 2008. While seeing no action early during the war, units operating them were assimilated into the Air Defence Department of the SyAAF in late 2011 and early 2012, and would go on to play a prominent role in attempts to fight back against Israeli, US, British and French air strikes in 2015–2019, by when at least one of the regiments equipped with them was deployed in the Aleppo area. All of the Syrian Buks wore a disruptive camouflage pattern in light stone atop of their original, dark green overall livery. (Artwork by David Bocquelet)



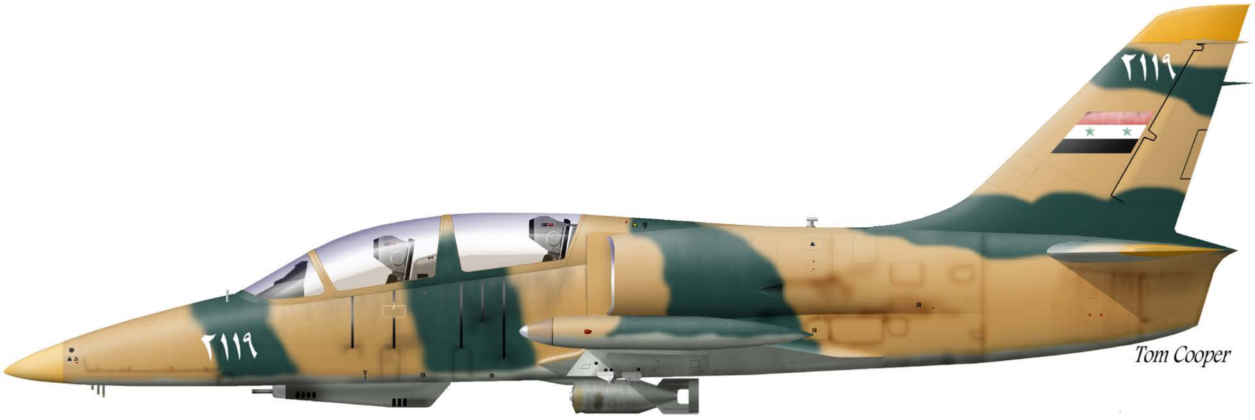
Hundreds of obsolete T-54 and T-55 MBTs were stored in various Syrian military bases as of 2011, and large numbers of them – including the complete complement of several mechanised battalions – were captured by insurgents. While the latter left the mass of their vehicles in 'as found' condition, some went to great extents in applying additional camouflage colours, or even markings. This vehicle wore the insignia of the Islamic Front, which operated a 'Tank Brigade' – including about a dozen T-54/55s – in Aleppo province during the second half of 2013. The original olive green was largely worn out: it was enhanced with splotches of dark yellow sand and dark brown, and stripes of light sand colour. (Artwork by David Bocquelet)



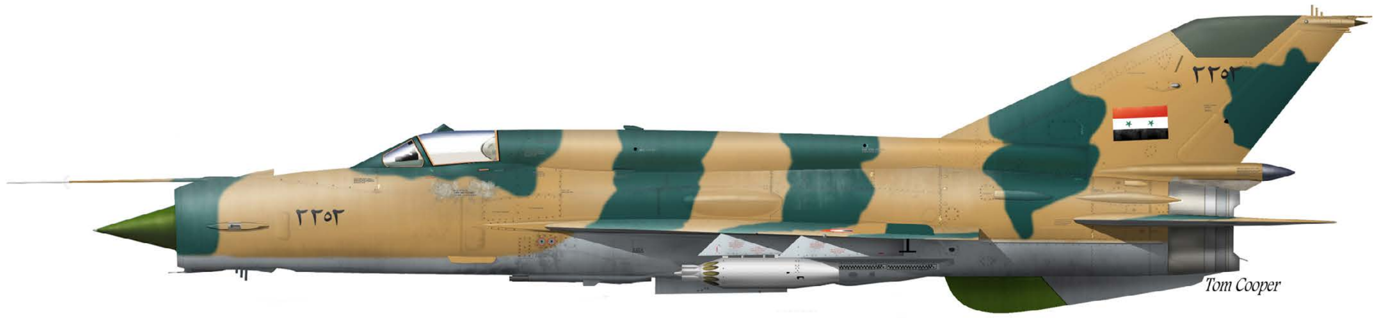
The fleet of about 150 Mil Mi-8 and Mi-17 helicopters was the most heavily utilised element of the SyAAF through 2011–2013. It suffered the heaviest losses too, with more than 60 being shot down or knocked out on the ground by December 2013. The mass of SyAAF Mi-8/17s was overhauled by The Works – the central maintenance facility at Nayrab AB – the military side of Aleppo International Airport – where they received very different camouflage patterns, all applied in slightly varying shades of the same colours as shown here: orange-sand and blue-green on top surfaces and sides, and either light blue or light admiralty grey (BS381C/697) on undersides. This Mi-8, serial number 1255, was captured intact at Afis AB, but eventually scrapped. It is shown together with an assortment of weapons most frequently deployed by the type, including one of the notorious 'Barmil' improvised bombs, UB-16-57 pods for unguided 57mm rockets and two variants of RBK-250 cluster bombs. Other insets show the housing for the Doppler radar, the chaff and flare dispenser installed under the boom of some of Mi-8/17s and an alternative fin flash. (Artwork by Tom Cooper)



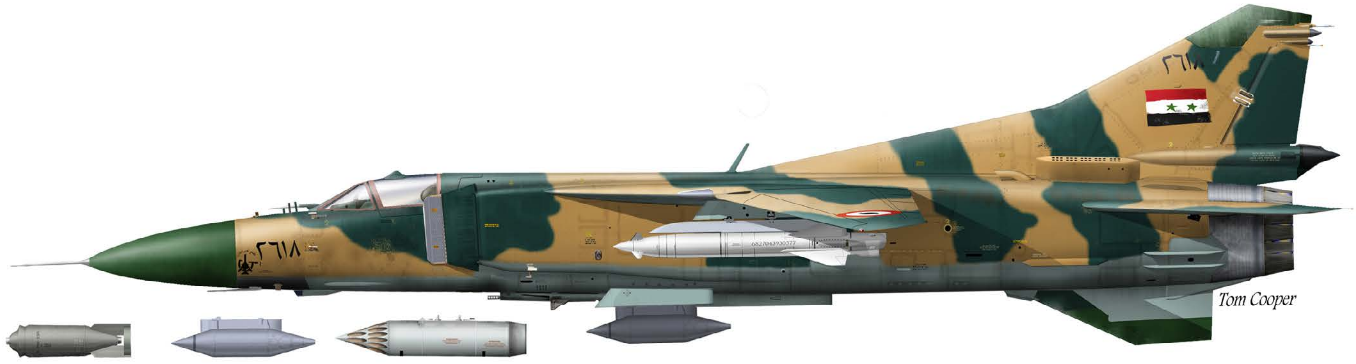
With Moscow initially refusing to deliver Mil Mi-25 helicopter gunships (ASCC/NATO codename 'Hind') to Syria, these arrived much too late to see action during the Lebanon War of 1982. The type was heavily deployed during the Syrian War, starting in 2011, by when much of the fleet had undergone overhauls in Russia. This example, serial number 2851, was shot down west of Dayr az-Zawr on 6 May 2013 (the crew, including pilot Colonel Ahmed Yahya, gunner Lieutenant Abdel Karim Ibrahim Ibn Nasser, and technician, Sergeant Salman Asif Derg, was killed). The inset shows details of weapons deployed by Syrian Mi-25s, including a 9-A-624 gun pod with twin-barrel 23mm cannon, FAB-100-120 and FAB-250M54 general-purpose bombs, OFAB-250ShN and ODAB-400 incendiary bombs – all of Russian origin. Notably, roundels were applied not only on the rear of the fuselage, but on top surfaces of the winglets, and the bottom of the cabin. (Artwork by Tom Cooper)



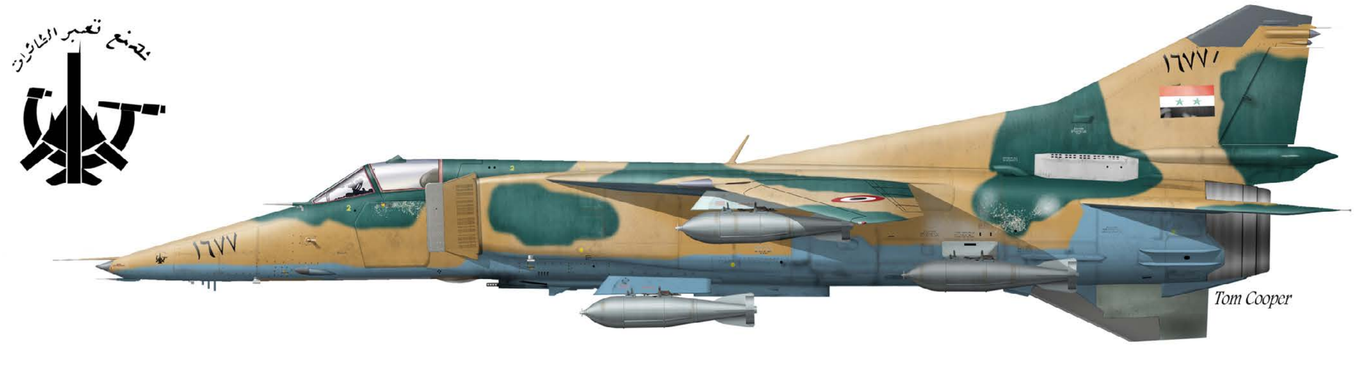
Syria acquired 55 Aero L-39ZO jet trainers, and 44 L-39ZA armed trainers from Czechoslovakia in the 1970s and 1980s. About 40 were still in service with the Kweres and Kshesh based 77th Training Brigade of the Air Academy as of 2011, with about 30 others in need of overhauls. By 2011 most L-39s had undergone at least one overhaul at The Works, and thus all wore different versions of the camouflage pattern illustrated here, applied in orange-sand and blue-green on top surfaces, and light admiralty grey (BS381C/697) on undersurfaces. Operational examples were rushed into action when the insurgents overran most of Aleppo in the summer of 2012 and flew thousands of air strikes for the rest of that and the following year, usually armed with FAB-100M-54 general-purpose bombs, as illustrated here. Additionally, L-39ZAs frequently deployed their 23mm automatic cannon, installed under the front cockpit. (Artwork by Tom Cooper)



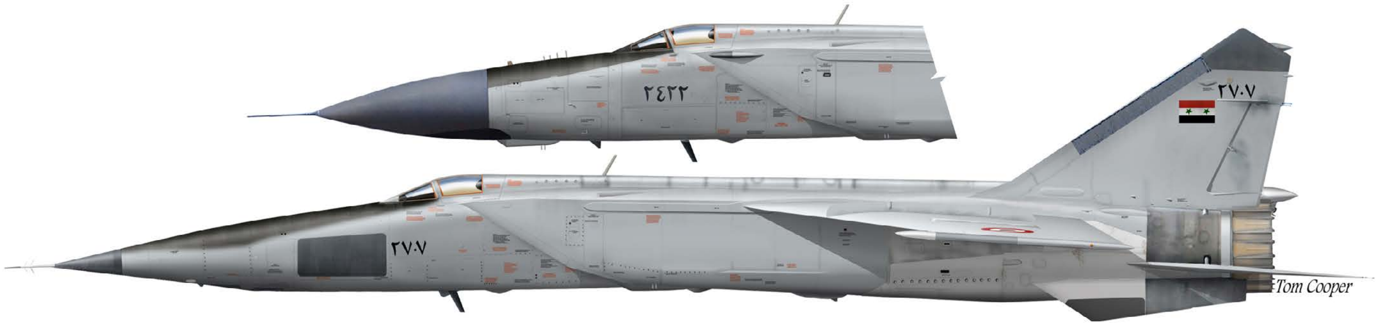
Rarely seen earlier during the Syrian War, the SyAAF fleet of about 60 MiG-21bis – and about a dozen older MiG-21MFs – flew more than 1,000 registered combat sorties between 1 October 2012 and 30 April 2013. All the aircraft still in service at the time had undergone overhauls at The Works and thus were painted in different camouflage patterns always consisting of orange-sand and blue-green on the top surfaces and sides, and light admiralty grey (BS381C/697) on undersides. As traditional in the SyAAF since its reestablishment in 1962, roundels were applied on top and bottom wing surfaces only. Serials in the range 2201–2399 were applied on the forward fuselage and near the top of the fin. Notably, most MiG-21bis were equipped with chaff and flare dispensers installed low on the centre fuselage. (Artwork by Tom Cooper)



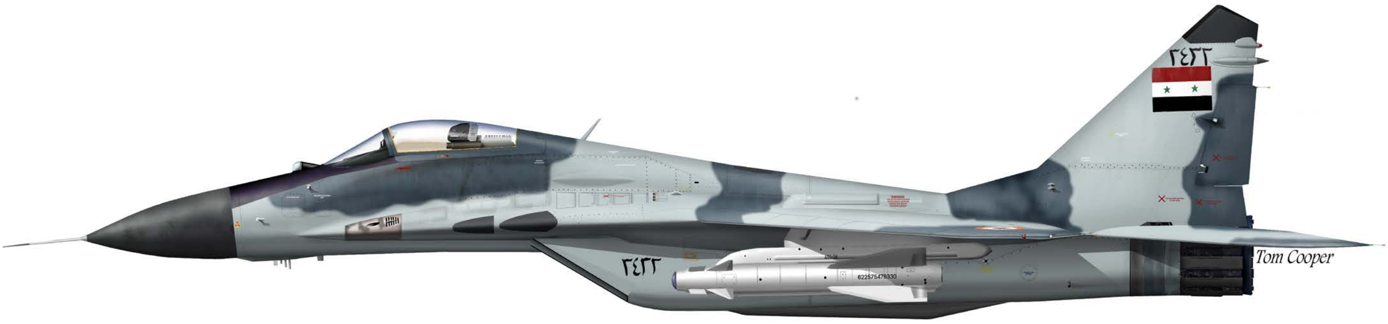
This is a reconstruction of MiG-23MF serial number 2618, from the Hama-based No. 678 Squadron, frequently seen in action over Aleppo and Idlib provinces through 2012 and 2013. Overhauled at The Works, it was painted in the same colours as the MiG-21 fleet, applied in a pattern differing from aircraft to aircraft. Notable are the crudely applied fin flash, and the chaff and flare dispenser of indigenous design, applied on the rear fuselage, next to the fin. The aircraft is shown armed with a Kh-23M guided missile, as used during the attack on the HQ of the Tawhid Brigade in northern Aleppo in late 2013. The strike killed most of that unit's staff, eventually causing its dissolution – and the collapse of the genuine insurgency in that part of Syria. Insets show other types of armament deployed by this variant, including a FAB-250M-54 general-purpose bomb, the Delta pod for guiding Kh-23M missiles, and a B-8M pod for unguided 80mm rockets. (Artwork by Tom Cooper)



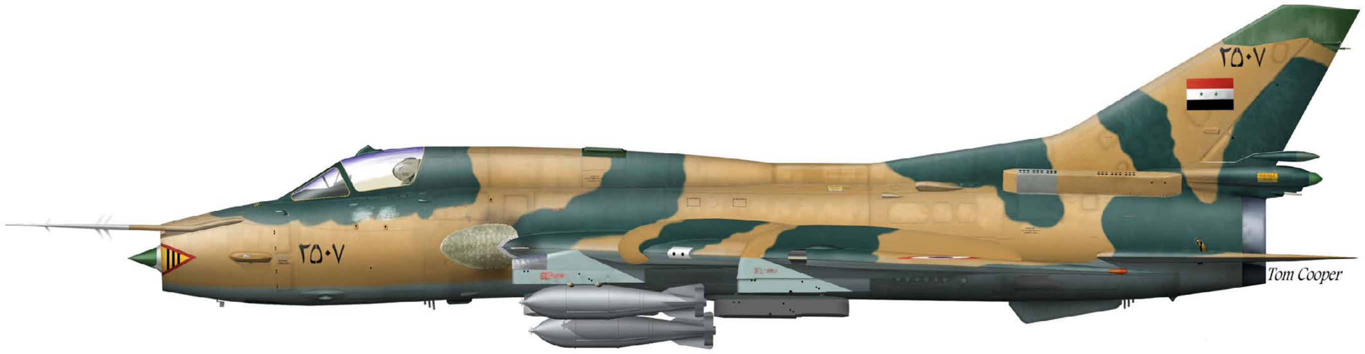
A reconstruction of MiG-23BN serial number 1679, from the Dmeyr-based No. 77 Squadron, as seen in action over southern Damascus in early 2013. The aircraft is shown as armed with six FAB-500M-62 general-purpose bombs. Like all locally overhauled MiG-23s, it was equipped with large chaff and flare dispensers of indigenous design, installed on top of the rear fuselage, on either side of the fin. Inset is shown the insignia of The Works at Nayrab AB, applied on all Mi-8s, MiG-21s, and MiG-23s overhauled there. Ultimately, the utilisation of the MiG-23BN fleet reached such proportions, that at least one pilot survived no fewer than three ejections from downed aircraft, and the entire fleet was grounded in 2017. (Artwork by Tom Cooper)



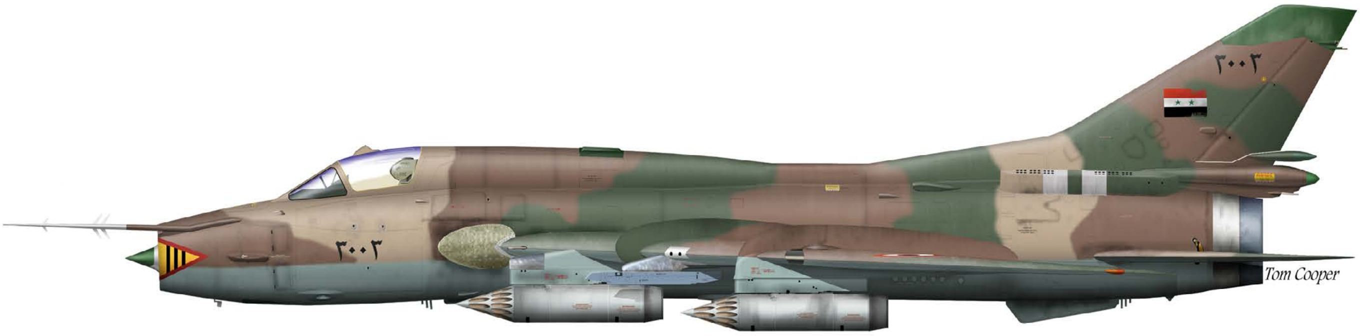
As of 2011–2013, the SyAAF still had a handful of MiG-25s operational, all home-based at T-4/Tiyas AB. These included at least a pair of interceptors of the MiG-25PD variant (inset), which stood quick reaction alert, armed with their huge R-40 air-to-air missiles (ASCC/NATO codename 'AA-6 Acrid'). While interceptors only occasionally flew demonstrative flights along the border with Turkey, thanks to their cameras, reconnaissance variants – like MiG-25RBS (shown in the main illustration) – became one of the most important assets of the air force, and flew regular sorties over the major battlefields of the war. All Syrian MiG-25s were painted in camouflage grey (BS381C/626) overall, with dielectric surfaces in dark gull grey (FS26311), and lower surfaces of engine nacelles in 'neutral steel'. As usual, roundels were applied on top and bottom wing surfaces only. (Artworks by Tom Cooper)



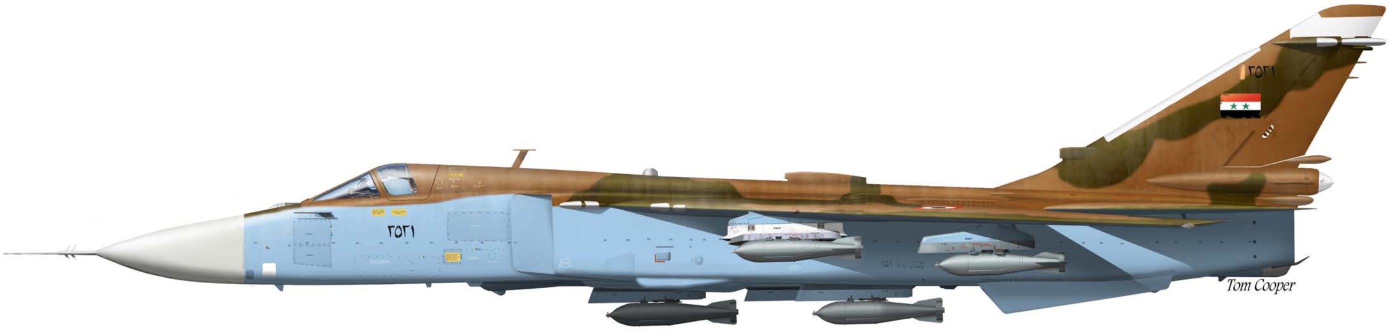
Between 2011 and 2013, the survivors of about 24 MiG-29s (9.12Bs and 9.51Bs) acquired in the late 1980s, were overhauled at The Works and upgraded to the MiG-29SM standard. This made them compatible with Russian-made R-77 air-to-air missiles (ASCC/NATO codename 'AA-12 Adder'), and guided air-to-ground weapons like Kh-29T (ASCC/NATO codename 'AS-14 Kedge'), as shown in this illustration. During the overhaul, all were repainted in a colour similar to medium sea grey (BS381C/637) overall, with a camouflage pattern in a colour similar to extra dark sea grey (BS381C/640) on top surfaces and sides. Starting in 2013, the Syrian MiG-29 fleet was heavily utilised for ground attacks: Kh-29Ts were deployed for strikes on bridges in Dayr az-Zawr, but most of the time the type was deployed for close air support and armed with B-8M pods for unguided 80mm rockets. (Artwork by Tom Cooper)



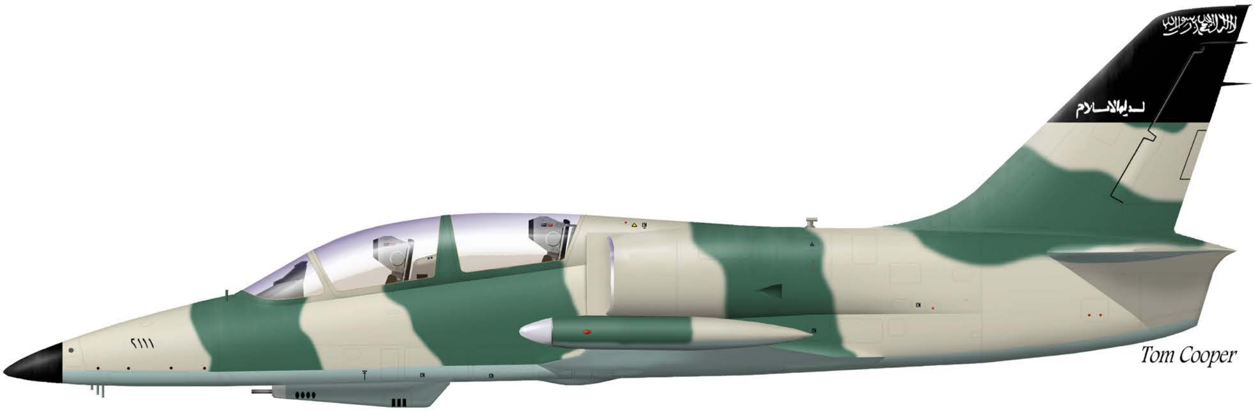
Operated by four squadrons, the fleet of about 70 Sukhoi Su-22M-3K and Su-22M-4 formed the backbone of SyAAF's strike capability, and thus was relatively well upkept as of 2011–2012. By this time, the majority of Su-22M-3Ks had undergone overhaul at The Works, resulting in the application of new camouflage pattern consisting of orange-sand and blue-green, as shown in the example illustrated here, serial number 2507. Notable are large roundels applied on top and bottom wing surfaces, and – visible near the bottom of the fin – double sets of chaff and flare dispensers of indigenous design, applied in the mid-1980s. The principal armament of this type consisted of either four or six FAB-500M-62 general-purpose bombs. (Artwork by Tom Cooper)



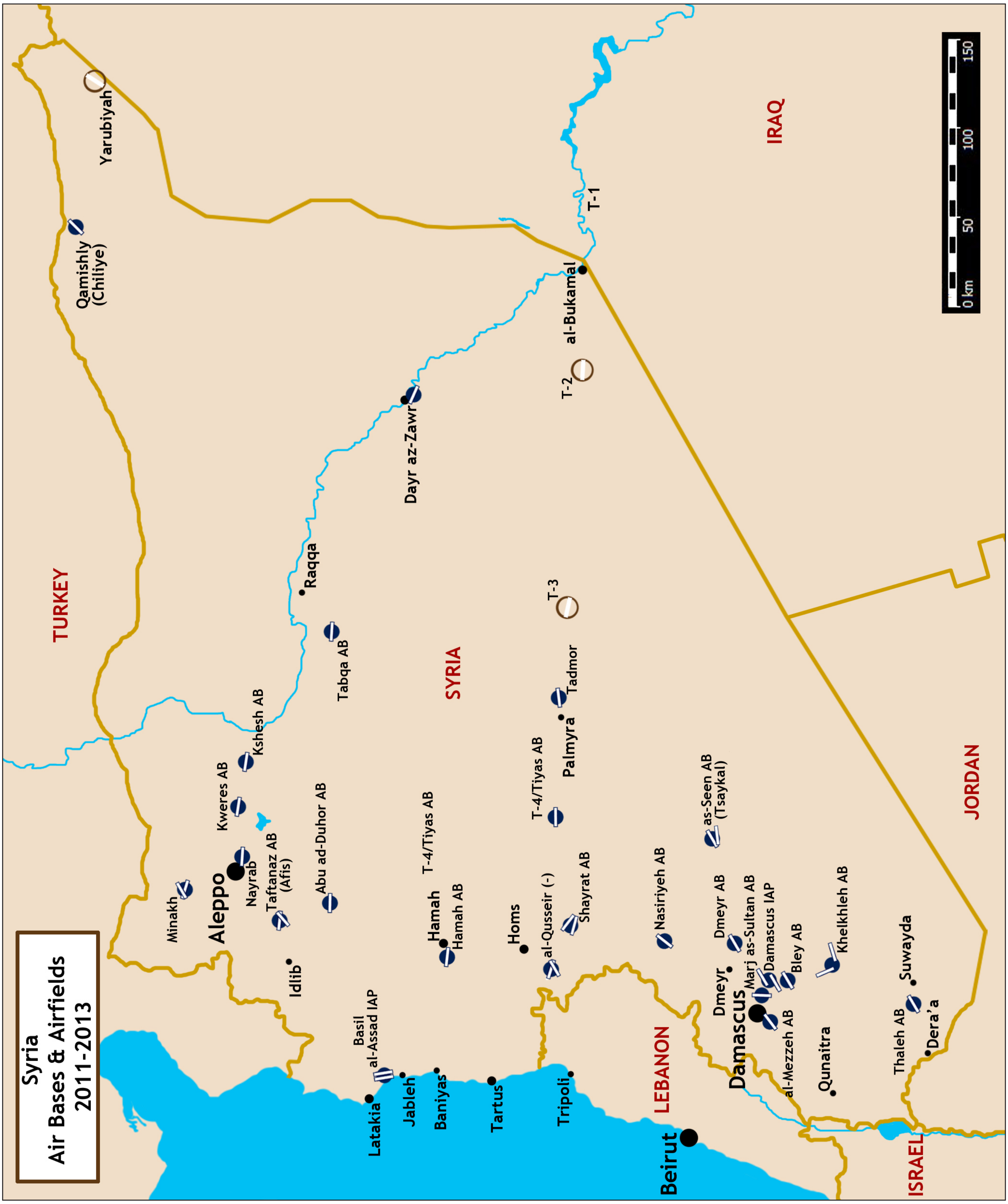
Starting in late 2013, the first Su-22M-3Ks (illustrated here is the jet that wore the serial number 3003, belonging to the second batch of this variant, originally delivered in 1983) were observed in Syria wearing an entirely new camouflage pattern, consisting of mid-stone (BS381C/362), dark earth (BS381C/350), and either olive drab (BS381C/298) or dark green (BS381C/641) on upper surfaces and sides, and light admiralty grey (BS381C/697) on undersurfaces. The same pattern – which differed from aircraft to aircraft – was subsequently applied to all surviving Su-22M-4s. Other notable differences were related to their weaponry. After exhausting the stock of drop tanks, most jets operated without these. For similar reasons, instead of bombs, they began deploying B-8M pods for unguided 80mm rockets. (Artwork by Tom Cooper)



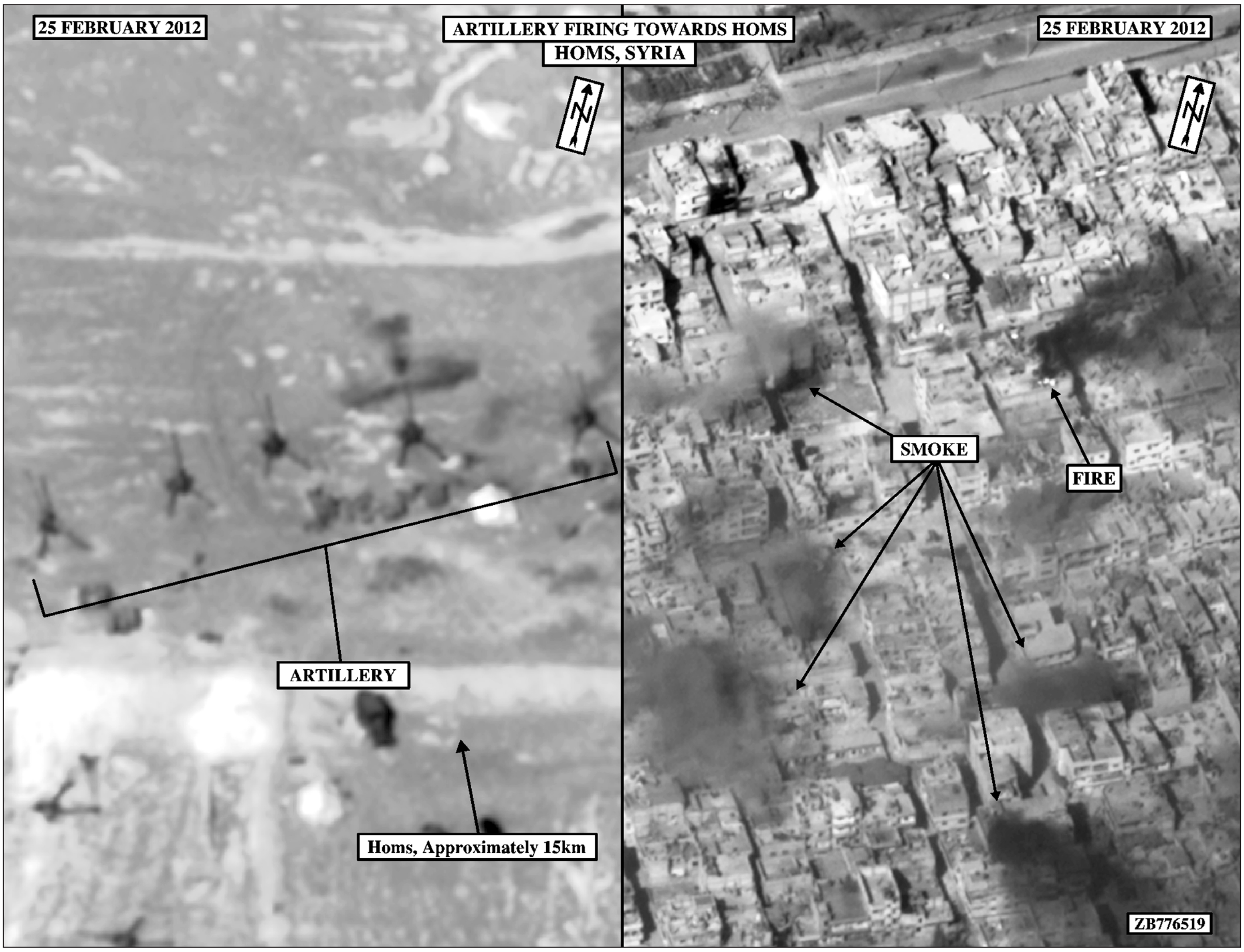
Syria originally acquired 21 Su-24MKs in the late 1980s, and they were operated by Nos. 19 and 696 Squadrons from T-4/Tiyas, and as-Seen, respectively. At least 16 of these had been overhauled in Russia by 2012, and subsequently saw intensive deployment during the war, often flying two sorties per jet per day. Indeed, between 1 October 2012 and 30 April 2013, the fleet undertook no fewer than 400 combat sorties. All aircraft wore the same camouflage pattern, applied in Russian colours known as 667 brown and 670 light brown on top surfaces and sides, and light blue on sides and undersurfaces. The aircraft were almost always armed with FAB-250M-62 general-purpose bombs, as shown here, up to 10 of which could be installed at once (including two on a dual hardpoint on the inboard underwing pylon). (Artwork by Tom Cooper)



In late October 2013, the Army of Islam announced that it had made operational two L-39s captured at Ksheesh AB, apparently with the help of veterans from the UAE and Qatari armed forces. Both aircraft were test-rolled up and down the runway but seem never to have been flown. This is a reconstruction of one of two jets in question, based on photos and videos released by the Army of Islam. The aircraft appears to have been completely overpainted in sand and green on upper surfaces and sides, and light blue-grey on undersurfaces. Its 'insignia' consisted of the Army of Islam's logo applied in white on the top of the fin, half of which was painted in black (as was the nose of the jet). Serial 2111, was probably taken over from the SyAAF. (Artwork by Tom Cooper)


Syria
Air Bases & Airfields
2011-2013
TURKEY
SYRIA
IRAQ
JORDAN
LEBANON
ISRAEL
Yarubiyah
Qamishly (Chiliye)
T-1
al-Bukamal
T-2
Dayr az-Zawr
Raqqa
T-3
Tabqa AB
Kshesh AB
Kweres AB
Aleppo
Nayrab
Minakh
Taftanaz AB (Afis)
Abu ad-Duhor AB
Idlib
T-4/Tiyas AB
Hamah
Hamah AB
Palmyra
Tadmor
T-4/Tiyas AB
Homs
Shayrat AB
al-Qusseir (-)
Nasiriyeh AB
as-Seen AB (Tsaykal)
Dmeyr AB
Dmeyr
Marj as-Sultan AB
Damascus IAP
Bley AB
Khelkhleh AB
Damascus
al-Mezzeh AB
Suwayda
Thaleh AB
Dera'a
Qunaitra
Beirut
Tripoli
Tartus
Baniyas
Jableh
Latakia
Basil al-Assad IAP
0 km
50
100
150

A map of all the air bases and secondary airfields in use by the SyAAF in 2011–2013. (Map by Tom Cooper)



Satellite intelligence photographs released by the US Department of Defence, showing artillery positions and traces of intensive shelling of Homs by loyalist forces in February 2012. (US DoD)

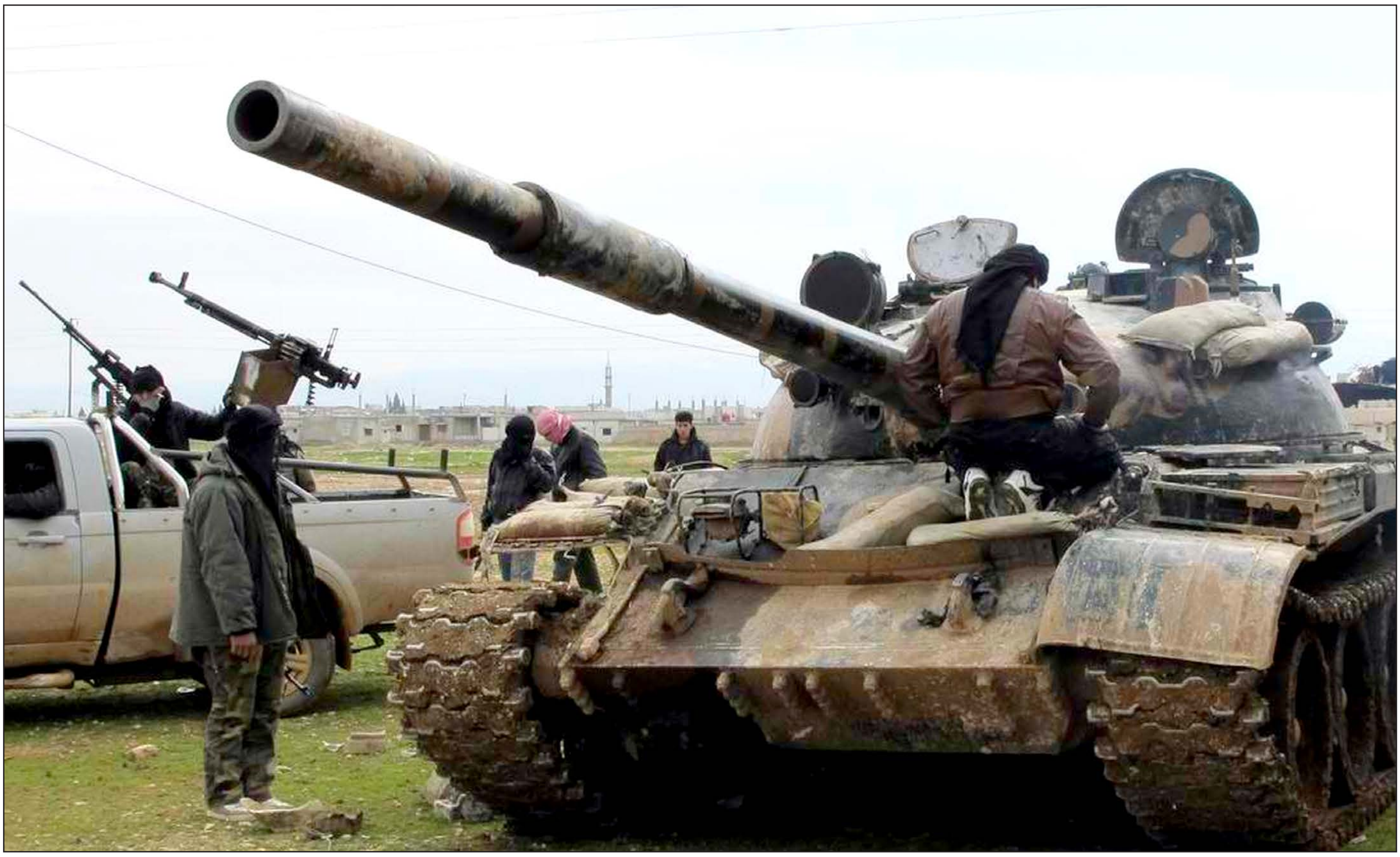
of refugees, hundreds of whom were either killed by shelling or kidnapped and summarily executed by the loyalists.

The main attack on Bab Amr was launched by special forces supported by around 30 MBTs and IFVs on 29 February, after additional shelling and several attacks by helicopter gunships. With at least 114 out of about 250 insurgents of the Farouq Brigade FSyA dead, Bab Amr was overrun by government forces on the morning of 1 March. Next, a government task force of similar size and composition attacked Karm al-Zeitoun on 9 March, and Bab Sbaa on 24 March. Once again, the loyalists suffered significant losses in the course of these operations, including at least six MBTs and IFVs, and one Mi-8 claimed as shot down on 10 March over Karm al-Zeitoun. However, with this the insurgents ran out of steam: already weakened by months of siege and heavy fighting, they were forced to withdraw, and by the time a nationwide ceasefire was announced on 1 April 2012, the government was in control of 13 out of 16 Sunni districts of Homs.

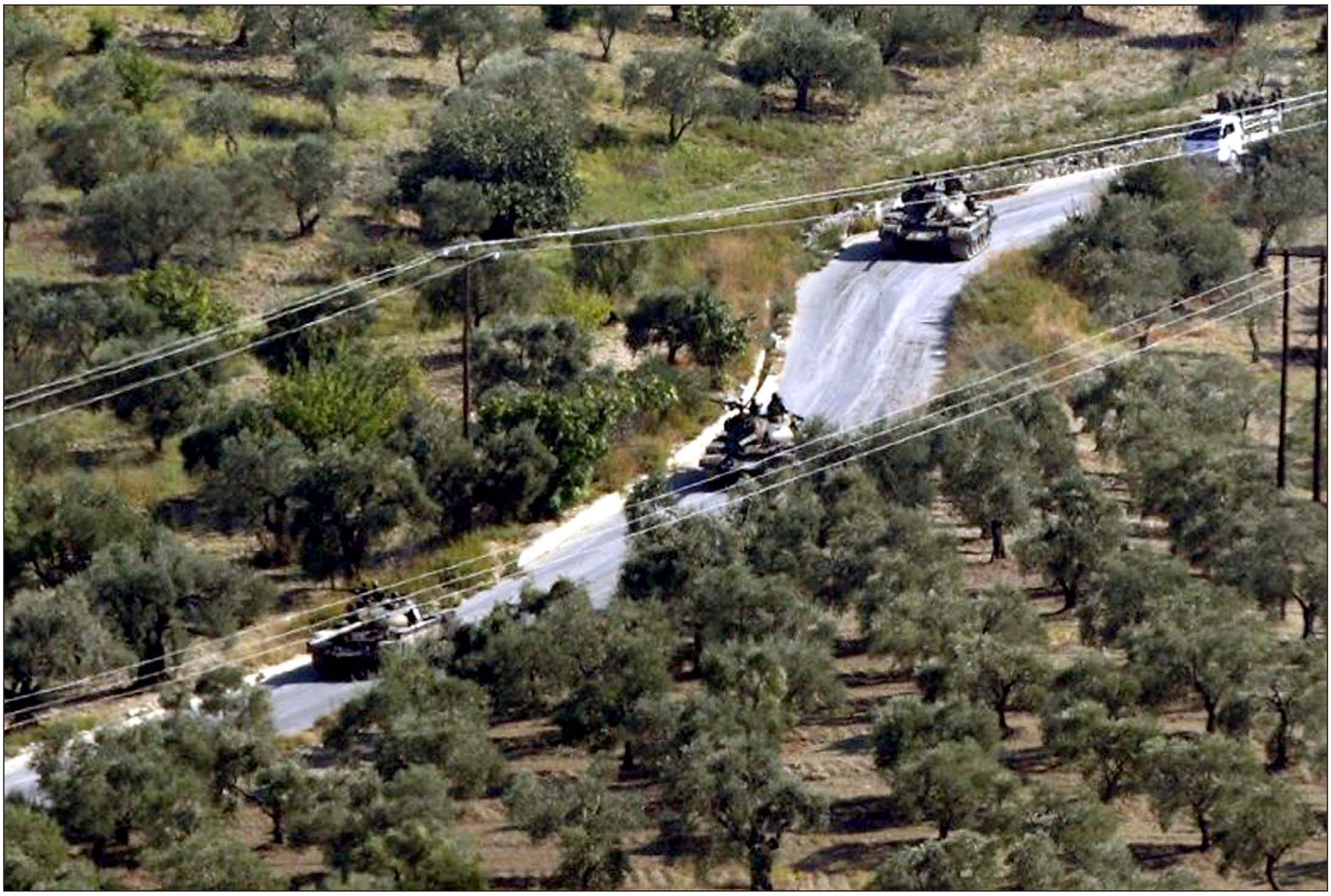
Apparently, by deploying a huge concentration of forces inside the city, the government cleared the strongest point of insurgent resistance up to that time, secured the crucial crossroad of highways between Damascus, Aleppo and the coast, and prevented the insurgency in Homs from regaining momentum for the rest of that year. However, according to SANA releases for the period between January and March 2012, it can be reliably concluded that the government suffered a loss of nearly 1,000 KIA in Homs.[2] Furthermore, resistance never ceased completely, and the SyAA engineers were finally forced to construct a 3-metre-high cement barrier around Bab Amr, leaving only a few narrow gaps for entry or exit, all protected by heavily fortified checkpoints. Correspondingly, while securing much of the city, this offensive actually tied down much of what was left of the SyAA at a time that the government was badly short on military units. Indeed, a large proportion of what was left of the army remained concentrated in the Homs area and tied to the task of securing strategic highways from Damascus to the coast.

THE LAST SYAA OFFENSIVES

Outside Homs the FSyA remained unsuccessful, illustrating the inability of the government to maintain sufficient troop presence 40km away from that city. During November and December 2011, a series of protests culminated in near-liberation of al-Qusayr, a town of around 70,000 near the border with Lebanon. After destroying most of the checkpoints on the outskirts, the insurgents attacked into the town centre on 13 February 2012, and destroyed the local HQ of the AFI, forcing a garrison of about 400 intelligence operatives and Shabiha to withdraw. The government rushed a company of T-62s from the 85th Brigade to Qusayr, but at least one of the involved crews defected and knocked out three other tanks in a short battle, in turn enabling the FSyA to secure the entire town. The loyalists subsequently deployed reinforcements



A T-62M (probably from the 11th AD), captured by insurgents (or brought over by a defector) outside al-Qusayr in February 2012. (SNN via Y.A.)



T-55 tanks from one of the units subordinated to the notorious 76th – or 'Death' – Brigade, seen advancing along Route 58, in Idlib Province, in 2012. Rugged terrain provided plenty of opportunity for ambushes, and these were repeatedly exploited by insurgents. (ENN)

A T-72 MBT of an unknown unit on the streets of Yabroud in March 2012. This town in the Qalamoun Range overlooking the highway from Damascus to Homs became the centre of a large insurgent-controlled area during the first half of 2012. (via M.Z.)

around Qusayr but – lacking the troop strength for an assault – only put it under siege from 4 March 2012.

During the spring of 2012, the insurgency spread through the southern outskirts of Damascus and the surrounding Rif Dimashq Province. The government deployed the Republican Guards Division and much of the 4th AD, supported by operatives from all the major intelligence agencies to run a series of savage raids through Douma, Erbeen, Rankoos, Zamalka, Jisreen and Harasta. Although suffering extensive losses in armour, the military re-established itself in control of most of these, and local insurgents admitted having withdrawn by the end of March.

Next, Assad ordered the military to recover the city of Idlib, a stronghold of protests through early 2012 and practically under insurgent control, and to reopen road links between Lattakia and Aleppo. Furthermore, there was a necessity to secure Abu ad-Duhor AB, south-east of Idlib, where a mutiny erupted on 3 March, when a group of about 50 officers and other ranks attempted to defect. Correspondingly, the 35th, 46th and the 47th SF Regiments and the 76th Armoured Brigade – a total of about 3,000 troops supported by some 40 armoured vehicles, corseted by elements of the 4th AD (including most of the 145th Artillery Regiment) and intelligence services – were deployed in this direction early during the same month. After bringing the situation at Abu ad-Duhor AB under control on 10 March, the military began shelling Idlib with artillery and mortars, and then launched an infantry assault supported by T-72s and BMP-1s. The insurgents easily ambushed several of the mechanised columns that drove towards the downtown, claiming at least six destroyed tanks and one helicopter as shot down, but casualties were heavy on both sides, with more than 100 combatants and civilians killed before the surviving insurgents withdrew towards Binnish on 13 March.

Through the rest of that month and during April, the 76th AB was deployed in further 'search and destroy' operations along the road from Idlib to Aleppo, committing numerous atrocities and even leaving behind graffiti proclaiming these as work of the 'Death Brigade' – a name that stuck to this unit. However, it suffered such losses in the process that it repeatedly had to be bolstered through the transfer of predominantly Alawite-staffed companies from other units that fell apart. Following in its wake, the remnants of the 46th SF Regiment then established 'Base 46', overlooking large stretches of that road, in attempt to secure this vital supply link.

While mass protests in Aleppo, Damascus, Hama and Dayr az-Zawr continued, the tempo of government military operations apparently slowed down during May, June and July 2012. Actually, dozens of small task forces remained active all over the country, often in response to demonstrations, but more often in outright massacres of the Sunni population in Homs, Hama and Idlib Provinces, instigated in order to scare others to flee. More importantly, when the loyalist troops returned to re-raid some towns they faced stiff resistance from insurgents. Many of the columns moving towards Idlib were ambushed with heavy loss while passing through Ariha. What was subsequently left of the Syrian military in Idlib Province was reduced to holding that city, a thin corridor along the road to Lattakia, and a number of isolated bases and checkpoints distributed along a few other roads in the area. From these relatively secure bases, loyalists were able to shell opposition-controlled areas from a distance, applying methods of collective punishment against the population that supported the insurgency. However, they ceased launching patrols in order not to expose themselves to ambushes. This and the decision to maintain these thinly stretched units was obviously driven by the need to retain a presence in order to keep hold of the government's claim to power. In turn, this made it necessary to conserve what was left of the combat power of the military because the insurgents were thus forced to engage well dug-in troops, protected by strong defences, armoured vehicles and artillery, and supported from the air. The strongpoints had the additional benefit of isolating less-reliable troops from contact with the population and reducing

A group of defectors from the SyAA, declaring their decision to join the FSyA and insurgency, in Idlib Province, in May 2012. Although usually armed only with AK-47s, and having few machine guns and RPG-7s, once free of the tight control of superior military officers they proved quite successful in their early operations against government forces. (SNN)

the likelihood of defection. However, this also meant that the government did nothing to disrupt insurgent activity in the countryside, enabling them to expand their forces to brigade-level organisations and establish good supply links with Turkey.

Developments in the al-Qusayr area followed a similar pattern. On 31 May 2012, a task force consisting of elements from the 65th AB (3rd AD) and 4th AD launched an attack on this town, only to run into numerous ambushes set up by insurgents led by officers that had defecteds from special forces regiments. By the time they were forced to stop their assault on 9 June 2012, the loyalists left behind them at least eight knocked out T-72s and over 200 casualties. Overall, government forces suffered a loss of at least 33 BMP-1s destroyed and 13 captured by insurgents, and 20 different MBTs destroyed and five captured by insurgents in Idlib and Homs Provinces between 9 May and 16 June 2012.

In early July 2012, after squashing several huge demonstrations in downtown Aleppo, elements of the 10th Armoured Division launched an offensive towards the north, in order to secure the roads to border crossings into Turkey and land connections to Minakh AB. This operation was not only beaten back with a heavy loss but resulted in additional mass defections and a situation where the insurgents were subsequently able to establish the first large units and also bring sizeable swaths of this province under their control. Indeed, when the government rushed a large convoy supported by 23 armoured vehicles from Idlib in the direction of Aleppo, this was successively ambushed and nearly annihilated: by 26 June, it lost at least six T-55s and about a dozen BMP-1s, and the insurgents also shot down a Mi-8 that attempted to provide support. Eventually, the government forces in Aleppo province were left unable to continue offensive operations.

For all practical purposes, these were the last offensive operations of the Syrian Arab Army as such. Ever since, and with the exception of battles for specific military bases, nearly all the offensive operations run on orders from the government in Damascus were undertaken by foreign combatants, sponsored by Iran, with only limited participation of the RGD and the 4th AD. Furthermore, it became nearly impossible to distinguish what was left of the SyAA from various loyalist militias.

DAMASCUS VOLCANO

The security situation in much of Damascus remained critical despite government operations in March 2012. Large demonstrations held every day regularly resulted in violent attacks by military and intelligence operatives, and dozens were killed nearly every day. It was against this backdrop that the Syrian capital was hit by a series of powerful car bomb blasts that killed dozens and injured hundreds. While the opposition denied responsibility for most of these, the government insisted on accusing the then little-known Jabahat an-Nusra. Government claims that the majority of the population wanted stability and not government change, were countered by general strikes that paralysed not only much of the capital but also Aleppo.

Until June 2012, and in an attempt to create the image of 'regular forces fighting against Islamist extremist terrorist gangs', the Syrian government regularly released details of at least some of its casualties. Once the popular uprising made the situation more clear, corresponding reporting all but ceased. This scene from the burial of 23 SyAA officers and other ranks was photographed on 2 May 2012. (SANA)

The aftermath of one of many massacres committed by 'security forces' of the Syrian government against civilians in the Douma District of Damascus in June 2012. Their burials were neither as flashy nor as celebrated as those of loyalist soldiers, and nearly always interrupted by artillery or mortar attacks, sometimes even air strikes. (SNN via Y.A.)

The FSyA launched its first offensive inside Damascus on 20 May 2012, attacking checkpoints and military convoys in Kfar Souseh, Almazza, Malki and several other neighbourhoods, causing dozens of casualties. This provoked another spate of defections, which peaked four days later when a Brigadier General and more than 200 officers and other ranks left their units and joined the insurgency, and on 21 June, when disaffected Colonel Hassan Mirei al-Hamadeh defected with his MiG-21bis fighter from Khelkhleh AB to Jordan.

The military reacted by shelling many of Damascus's suburbs, but the FSyA began attacking the military in the downtown, and pro-government TV stations in the suburbs, and by the end of the month had caused over 200 casualties amongst the military personnel.[3]

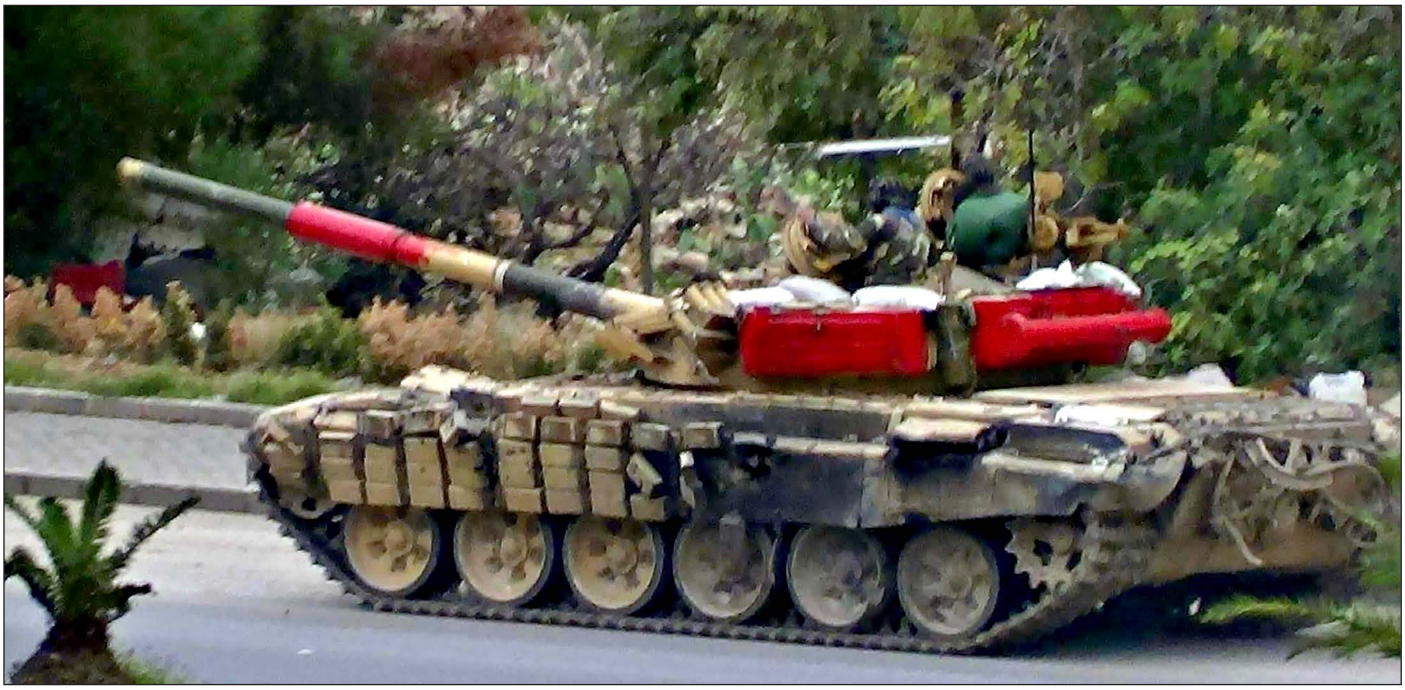
The general chaos inside the Syrian capital eventually prompted insurgent commanders in the Damascus area – foremost Colonel Qassim Saadedine of the FSyA – to start preparing a large-scale operation aimed at capturing the capital, named 'Operation Damascus Volcano'. Precise details remain evasive, but it seems that Saadedine managed to concentrate up to 3,000 lightly armed fighters from different units allied with the FSyA – including about 1,000 survivors of earlier fighting in Douma – and at least reasonable stocks of ammunition. However, his preparations were not only insufficient but also revealed to the government and the Republican Guards Division were ordered into a pre-emptive attack against major insurgent concentrations in Midan and Tadhamon districts on 15 July. Although systematically encircling both areas and then driving special forces supported by T-72s and Mi-8 helicopter gunships into one neighbourhood after another, the first attack on Midan was not successful. Amongst about 40 military and civilian officials killed was the Deputy Commander of Police in that district. Fighting for Tadamoun was as heavy, and eventually prompted the military to call for help from SyAAF Mi-8, Mi-17 and Mi-25 helicopter gunships. The FSyA launched its offensive on 17 July, attacking from Kfar Sousa, Barzeh and Qaboun into the downtown, while simultaneously assaulting nearly all checkpoints in Rif Dimashq, and cutting off the highways from Damascus to Dera'a and from Damascus to Homs. On the next

Bashar al-Assad (right), swearing-in Brigadier General Fahid Jasim al-Friej as the new Minister of Defence on 19 July 2012, following the assassination of Lieutenant General Daoud Rajiha, Major General Assef Shawkat, and Lieutenant General Hassan Turkmani two days earlier. (SANA)

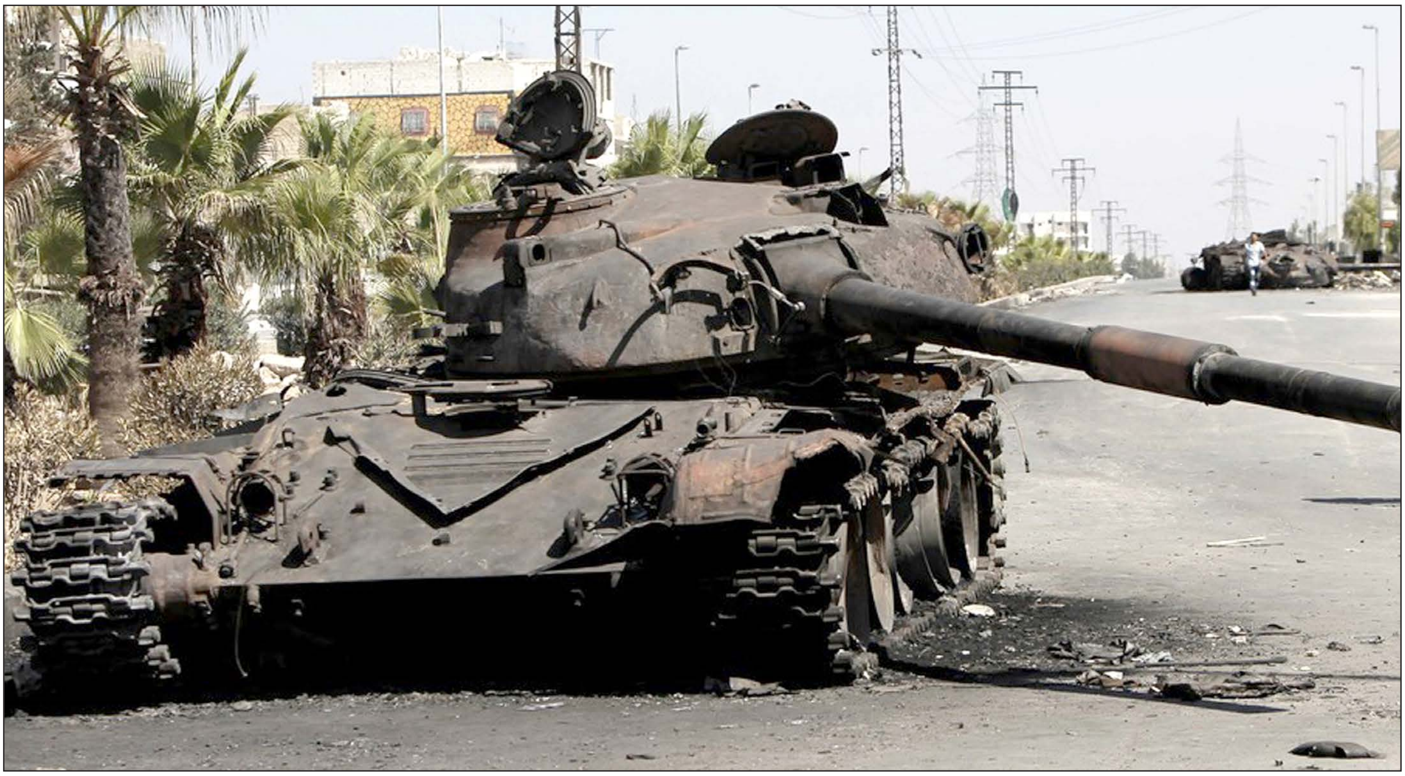
day, a suicide bomber demolished the National Security HQ in ar-Rawda District, killing the Minister of Defence Lieutenant General Daoud Rajiha, Major General Assef Shawkat, and Lieutenant General Hassan Turkmani (chief of Assad's Crisis Cell).[4] After insurgents overran Camp Sa'iqa in Basateen Almazza District, approached the Ministry of Defence, Parliament and the Central Bank, and ambushed a column of the 4th AD, destroying five T-72s and a BMP-1, Assad ordered whatever army units were available from their bases around Damascus and along the Golan Heights straight into the capital.

By deploying the entire RGD, much of what was left of the 3rd Armoured Division, and large parts of the 4th AD, the loyalists launched their major counteroffensive on 19 July. Preceded by heavy shelling and attacks by helicopter gunships, task forces composed of special forces and T-72 tanks successively forced the insurgents out of Midan, Tadhamon, Qaboun, Kfar Souseh, Jobar, Barzeh and Almazza.

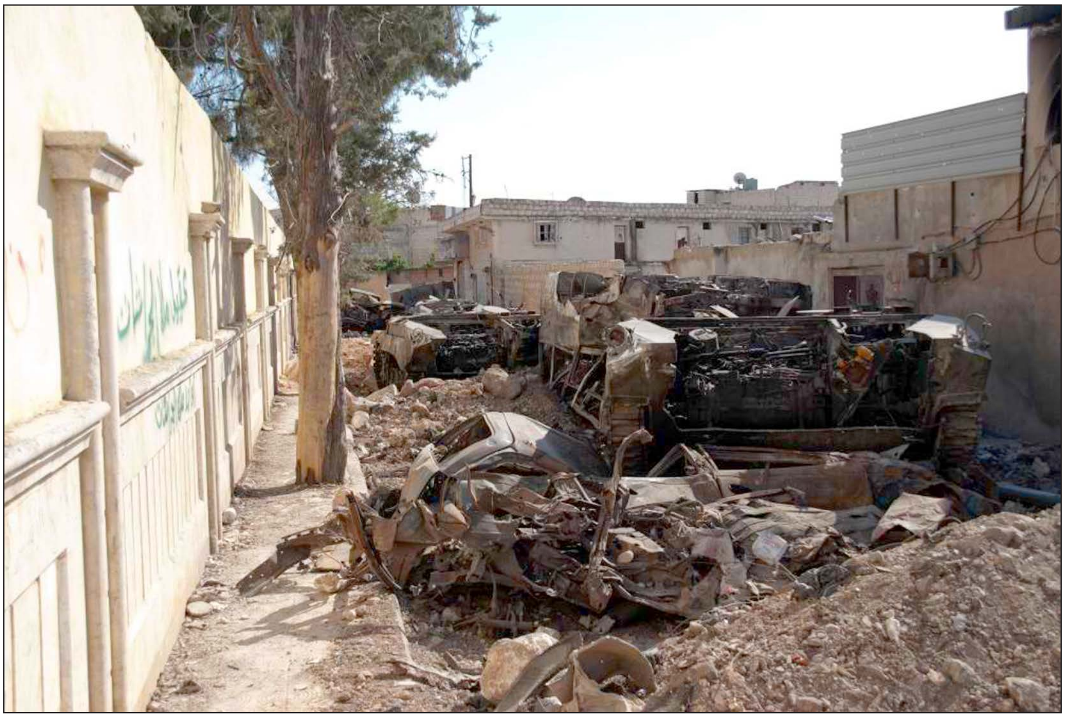
This 'Battle of Damascus' was to all intents and purposes over by 23 July, when most of the FSyA-held districts inside the capital were overrun and the government declared that the rebel forces were defeated. While providing a significant morale booster for loyalist forces – which by that time had begun to show signs of tremendous fatigue after almost a year of fighting – and the insurgents confirmed to have suffered heavy losses, the fighting went on. By 1 August, the RGD and the 4th AD assaulted Barzeh, Tadamoun and Hajar al-Aswad districts of Damascus, while the 3rd AD was attacking another insurgent stronghold in the town of al-Tal, outside the city. Eventually, heavy shelling and a series of massacres of the civilian population forced insurgents to withdraw from Damascus and al-Tal, but heavy losses sustained by that time resulted in the military running out of steam while assaulting the suburbs of Darayya and Moadamiya in late August, and these remained under insurgent control.[5]



Lengthy columns of sand-painted vehicles of the RGD became a regular sight on the streets of Damascus in late 2011, when this photograph of a T-72AV was taken. Of interest are storage boxes and part of the gun barrel painted in bright red, to ease identification of tanks operated by loyal forces from those operated by insurgents. Notably, this tank shows the scars of at least two RPG attacks, both apparently deflected by ERA. (Photo by LensDimashqi, via M.Z.)



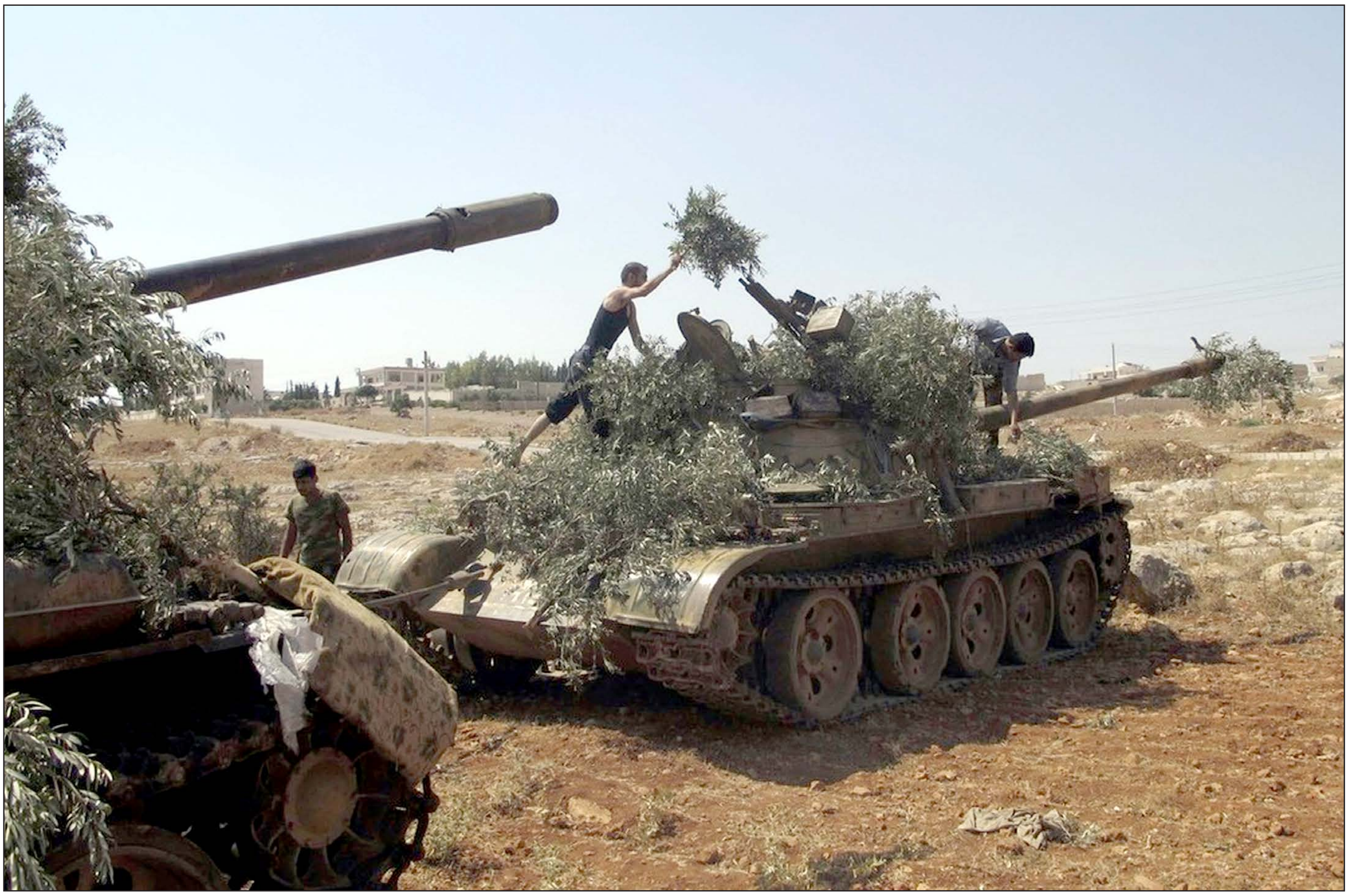
The 78th Armoured Brigade suffered heavy losses while rushing into Aleppo in response to a surprising insurgent advance on this city in late July and early August 2012. These two T-72s belonged to a company that was decimated within 10 minutes on the early morning of 3 August 2012. (SNN)



This column of BMP-1s and support vehicles made the deadly mistake of driving into a narrow alley in the outskirts of north-eastern Aleppo, the exit of which was blocked by an earthen barricade. All vehicles were quickly destroyed by insurgents, with heavy loss to the crews, on 27 July 2012. (SNN)

ATTACK ON ALEPPO

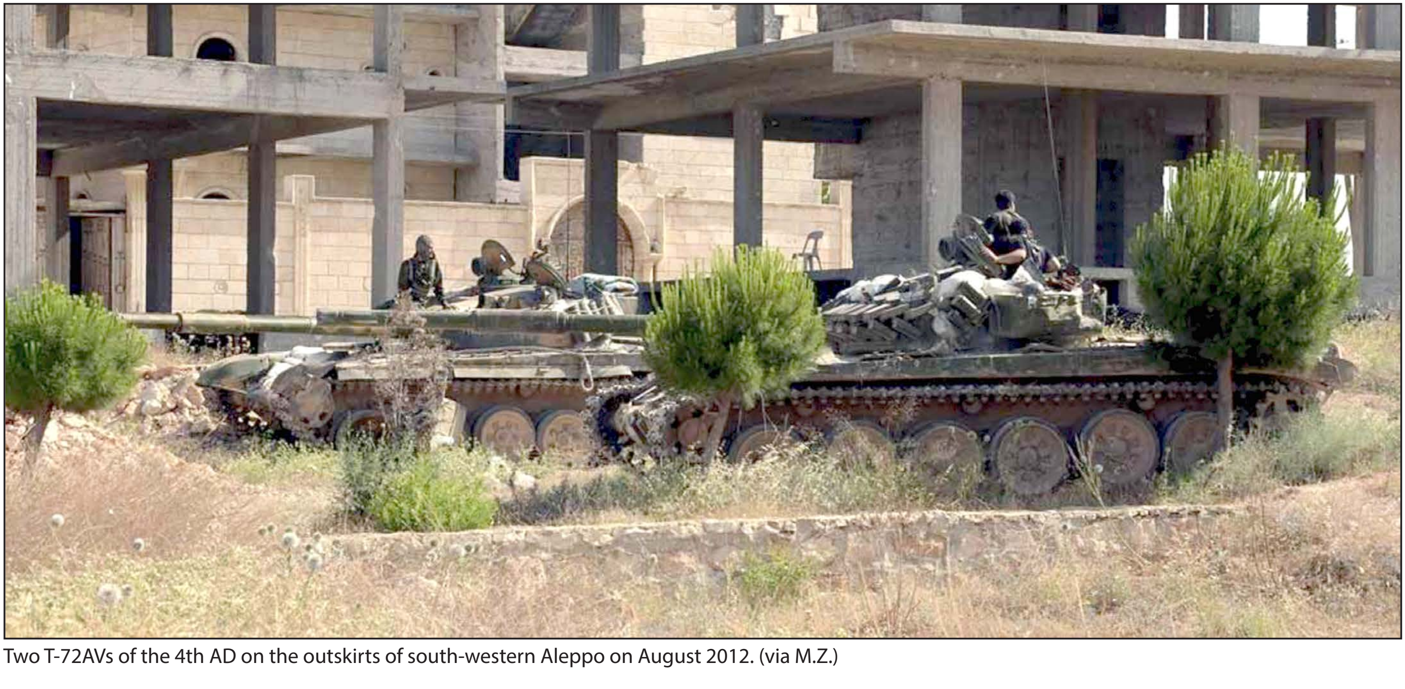
Although usually said to have been under firm government control and to have seen only minimal protests, parts of Aleppo saw significant demonstrations and violence from April 2011. Insurgent groups became active within the outskirts of the city during the spring of 2012, and conducted numerous attacks on military bases between April and June. The government reacted by cutting off all public services to districts where demonstrations took place, but this decision backfired massively. The insurgency spread even faster in the countryside around Aleppo and when parts of the 78th Armoured Brigade attempted to attack protesters in Azzaz, 30 kilometres north-west of Aleppo, on 11 July, the FSyA easily beat the assault back, destroying and capturing a number of T-72s in the process. Eight days later, Azzaz was completely liberated as several thousands of insurgents from 18 different groups launched their advance into northern and eastern Aleppo, where they joined local militias. Confronted by this onslaught, remnants of the 56th Brigade – completed through the addition of cadres from the former 18th and 85th Mechanised Brigades – deployed in a semi-circle around the biggest city in Syria, stretching from Anadan, Tel Rifaat, via Minakh AB and Azzaz to al-Bab, fell back into Aleppo, leaving behind significant amounts of heavy arms, ammunition and supplies. By 21 July, the insurgents advanced deep into the city, bringing Haydariya, Sakhour and Sallahaddin Districts under control, before continuing into Saif ad-Dawla and al-Jameeliya towards the Old City and medieval citadel, which are a United Nations World Heritage site. Local counterattacks by the T-72-equipped battalion of the 56th Brigade were slow, hesitant and followed the typical conduct of operations by government forces during the first two years of the



During their advance on Aleppo, the insurgents overran the town of Andan on 31 July 2012, capturing or destroying the entire complement of T-55s from the 88th Brigade in the process. These two MBTs were rapidly camouflaged in order to conceal them from the prying eyes of SyAAF L-39 pilots. (SNN)

conflict: small groups of tanks moved up and down major streets, expecting the opposition to flee at their sight. Considering that most insurgent units were led by former officers of the Syrian special forces, it was unsurprising that most such probes were ambushed and largely destroyed on 22 and 23 July. As several other Army units collapsed due to defections, the first major battle inside Aleppo developed only when the opposition reached the city's main intelligence headquarters, where the AFI and SSI operatives managed to stop them. Redirecting their advance, the insurgents launched an attack into the Old City, and after securing it continued to push westwards, claiming to have shot down two helicopters and destroyed at least six armoured vehicles on 24 July.

Alerted by the crisis in Aleppo, the government in Damascus once again reacted by scrambling reinforcements from all over the country. Units stationed in western Aleppo – like the cadre of the Artillery School, combined with remnants of the 56th, 18th and 85th Brigades, and the 80th Artillery Regiment, were ordered to slow down the enemy advance by bombarding all districts



Two T-72AVs of the 4th AD on the outskirts of south-western Aleppo on August 2012. (via M.Z.)

A T-72AV and troops of the 104th Brigade RGD seen during the advance into the Old City of Aleppo in mid-August 2012. (via M.Z.)

controlled by insurgents. Meanwhile, practically all the remaining Army units were withdrawn from northern and north-eastern Syria – foremost from Kurdish regions, where only small forces were left behind in Qamishly to protect local bases and key oil and gas infrastructure. Several additional companies from the 3rd, 4th, 10th, 11th, 17th and 18th Divisions, and most of the 416th SF Regiment (established from Alawite reservists in the Tartous area and trained by Iranian instructors in early 2012) were rushed from Hama, Homs and the Mediterranean coast. They were followed by troops drawn from a number of air defence units previously stationed in northern and north-eastern Syria, which were ordered to abandon their SAM-sites and were reorganised as infantry formations. As usual, once in the Aleppo area, all the various elements were reorganised, with companies from the 4th AD being combined with elements of various other units to create between eight and 10 new, battalion-sized ‘task forces’. For example, one such task force consisted of a mechanised company from the 4th AD, combined with a company each from the 416th SF Regiment, a company from the 56th AB, and one artillery battery from the Artillery School.

In this fashion, the government managed to concentrate around 20,000 troops, which were deployed for the first large-scale counterattack into the Sallahaddin, Fardous and Ansari Districts, on the afternoon of 28 July. Although preceded by nearly eight hours of artillery bombardment and air strikes, this attack was beaten back with some loss. Notably, the insurgents in Aleppo operated in a different fashion than elsewhere in Syria. They would deploy their snipers on rooftops to knock out government snipers; after that, the same snipers would start to target government infantry, separating it from the armour. Left on their own, the T-72 and T-62 tanks of army units were easy pickings for RGP-7-armed insurgents.

The government restarted its counterattack after arrival of the 104th Mechanised Brigade RGD, and this time a well-coordinated operations of mechanised infantry, special forces and T-72 tanks resulted in recovery of the ancient citadel and some parts of the Old City two days later. On 8 August, the 104th Brigade managed to breach insurgent positions and concentrate about a dozen tanks on one of the crucial roundabouts in Sallahaddin District. Having a free field of fire, this small force held out until the evening, when it was reinforced by infantry and intelligence operatives, which secured five streets. However, an insurgent counterattack recovered three of these on the next day.

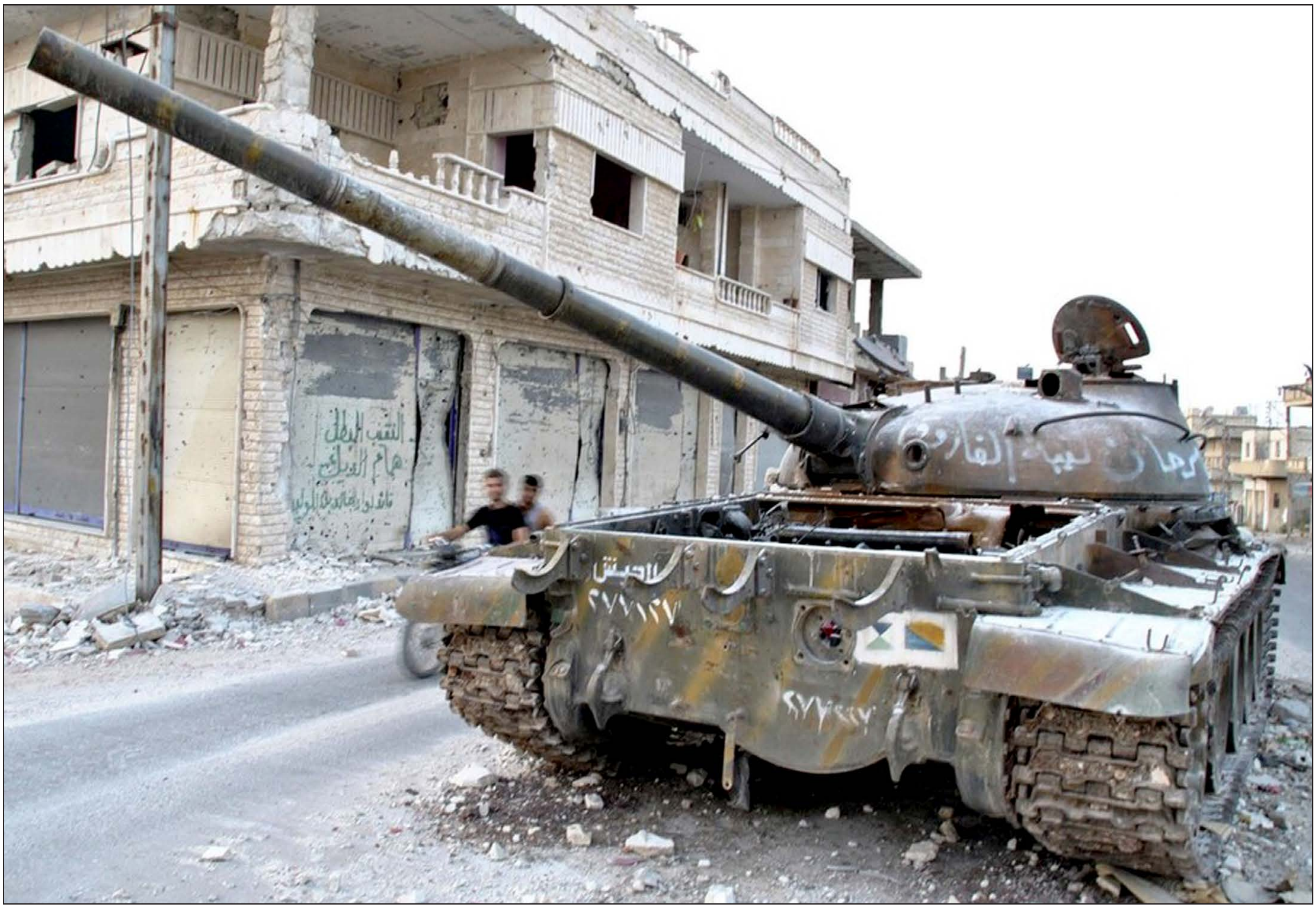
Following several days of artillery shelling and sustained air strikes, on 12 August the government attacked into the western Saif ad-Dawla and Sukari Districts but was finally stopped cold when the insurgents managed to resupply their forces with ammunition. Already exhausted from months of intensive operations, government forces in Aleppo subsequently ran out of steam. Although having only around 8,000 combatants that were short on ammunition and supplies, and despite considerable losses, the insurgents fought back bitterly and managed to retain most of the positions that they had reached during their initial advance. With the government troops critically short on fuel, tanks and men, and the insurgents lacking firepower and supplies, from late August 2012 the fighting in Aleppo degenerated into a long and very exhausting battle of attrition.

5

AIR FORCE TO THE RESCUE

During the first year of the conflict, government forces were relatively successful in clearing the most important parts of all the major urban centres – which was necessary for Bashar al-Assad’s survival and legitimacy of maintaining himself in power – but then remained in place to hold what they secured. Simultaneously, unable to recruit and retain enough forces to control all of Syria, the government lost most of the countryside. Furthermore, after securing Damascus, Homs and Idlib, it literally ran out of the fuel necessary to manoeuvre large forces. This short-sighted policy resulted in a number of additional mistakes. Actively seeking to force civilians out of insurgent-held areas and to clear insurgents out of population centres, government forces launched a campaign of brutal ethnic cleansing and displacement of large parts of the population with the help of artillery, air strikes, and periodic massacres, in turn pushing thousands of men into the hands of the insurgency and provoking a sectarian civil war.

Ironically, while proving increasingly unable to control the resulting conflict, out of concern about a possible Western intervention, Damascus kept a significant part of its military strength – the Syrian Arab Air Force – back, deploying it extremely cautiously during the first 16 months of protests and the insurgency. Mi-8 and Mi-17 helicopters were used to transport special forces into attacks against protesters and – later on – haul reinforcements and supplies to isolated bases. Sporadically, Mi-25 helicopter gunships were deployed to disperse larger protests, or attack early insurgent concentrations. Fighter-bombers –



One of many T-62s knocked out by insurgents during repeated attacks on ar-Rastan in June and July 2012, all of which were beaten back with extensive losses for the loyalists including more than 40 MBTs and IFVs. Expecting the insurgents to run away at their sight, loyalist commanders repeatedly deployed their armour without sufficient infantry and artillery support into densely built-up areas, with unavoidable results. (via M.Z.)

primarily lighter types like MiG-21s – flew very few attacks on well-defended targets in Homs and Rastan during the first half of 2012. It took large-scale insurgent attacks into Damascus, Dayr az-Zawr and then Aleppo for the government to gradually intensify the deployment of air power, and then a series of painful defeats through the autumn 2012 for Bahsar to order the SyAAF into all-out operations.

SYRIAN ARAB AIR FORCES AND AIR DEFENCE

Internally known as the 'silent service', the Syrian Arab Air Force (SyAAF) was – and remains – the core support base of the Syrian government. Hafez al-Assad became politically active after flying Gloster Meteors in the 1950s, and MiG-15s and MiG-17s in the early 1960s.[1] He established his original power base while serving as a base commander and climbed to power in Damascus while acting Commander of the SyAAF and Minister of Defence later on. It was under his command that the AFI became the most powerful (and notorious) intelligence agency and internal security service in the country.

Unlike intelligence services and military branches closely tied to the government, the SyAAF was not dominated by Alawites, but by Sunnis. However, whether serving in the SyAAF, or in any of the related branches or intelligence departments, its officers and NCOs were always handpicked for their loyalty, pampered with better pay and other incentives and privileges. They also remained the most closely monitored part of the Syrian armed forces: any kind of dissent amongst the pilots usually resulted in reassignment

The Sh'eirat-based No. 677 Squadron and an unknown unit based at Dmeyr AB were still operating about 20 Su-22M-3Ks. This classic, swing-wing design of the 1970s proved a true workhorse, capable of lifting up to 3,000kg of bombs and flying most of the combat sorties of the Syrian Civil War. (Photo by R.S.)

Table 2: Syrian Arab Air Forces, Order of Battle, 2011–2013

Homebase/HQ	Unit	Equipment	Notes
22nd Air Division, HQ Shayrat AB			
Kweres	**Air Academy/77th Training Brigade**		
Kweres	Training Squadron	~3–4 MFI-15-200A	
Kweres	Training Squadron	~20 L-39ZA	
Kshesh	Training Squadron	~20 L-39ZO	evacuated to Kweres in 2012
Basil al-Assad	**59th Helicopter Brigade**		
	618 Squadron	~3–4 Mi-14, 4–6 Ka-25/28	
Taftanaz	**63rd Helicopter Brigade**		
	253 Squadron	~5–6 Mi-8	evacuated to Hama, disbanded, 2013
	257 Squadron	~5–6 Mi-8	evacuated to Hama, disbanded, 2013
Abu ad-Duhor	**48th Brigade**		
	678 Squadron	~7–8 MiG-23MF	evacuated to Hamah in 2012
Tabqa	**24th Brigade**		
	12 Squadron	~5–6 MiG-21MF/bis	
	? Squadron	~5–6 Mi-8	
Hamah	**14th Fighter-Bomber Brigade**		
	679 Squadron	~7–8 MiG-21bis/UM	
	680 Squadron	~7–8 MiG-21bis/UM	disbanded in 2012
	255 Squadron	~5–6 Mi-8	
Shayrat	**50th Fighter-Bomber Brigade**		
	675 Squadron	~5–6 MiG-23MF	
	677 Squadron	~10–12 Su-22M-4	
	685 Squadron	~10–12 Su-22M-3	
T-4/Tiyas	**70th Fighter-Bomber Brigade**		
	19 Squadron	~7–8 Su-24MK/MK2	
	827 Squadron	~10–12 Su-22M-3	
	1 or 5 Squadron	~5–6 MiG-25PDS/RB	
Dayr az-Zawr	**48th Brigade?**		
	8 Squadron		status unclear
	10 Squadron	~5–6 MiG-21MF	
20th Air Division, HQ Dmeyr AB			
Nasiriyeh	**20th Fighter-Bomber Brigade**		
	695 Squadron	~6–7 MiG-23BN	
	697 Squadron	~6–7 MiG-23BN	
as-Seen	**17th Fighter-Bomber Brigade**		
	696 Squadron	~7–8 Su-24MK/MK2	
	698 Squadron	~6–7 MiG-29SM	
	699 Squadron	~6–7 MiG-29SM	
Dmeyr	**30th Fighter-Bomber Brigade**		
	67 Squadron	~10–12 MiG-23MLD	
	945 Squadron	~6–7 MiG-23BN	
	946 Squadron	~6–7 MiG-23BN	
	947 Squadron	~10–12 Su-22M-3	
Qabr as-Sitt	**86th Helicopter Brigade**		heliport, 86th Brigade evacuated to al-Mezzeh in 2013

Table 2: Syrian Arab Air Forces, Order of Battle, 2011–2013 (*continued*)

	532 Squadron	~5–6 Mi-8	
Marj as-Sultan	**64th Helicopter Brigade**		heliport, 64th Brigade evacuated to Bley in 2012
	525 Squadron	~5–6 Mi-8	disbanded in 2012
	537 Squadron	~5–6 Mi-8	disbanded in 2012
al-Mezzeh	**59th Helicopter Brigade**		
	976 Squadron	~10–12 SA.342	
	977 Squadron	~4–5 AS.365/Z-9, Mi-8P	
Damascus IAP	**29th Transport Brigade**		
	522 Squadron	~5–6 Yak-40/40K	
	575 Squadron	Falcon 20F, Falcon 900	
	585 Squadron	2 Il-76TD	
Bley (Marj Ruhayyl)	**30th Helicopter Brigade**		
	765 Squadron	~8–9 Mi-25	
	766 Squadron	~8–9 Mi-25	
	767 Squadron	~8–9 Mi-25	
Khelkhleh	**73rd Fighter-Bomber Brigade**		
	54 Squadron	~8–9 MiG-23MLD	
	77 Squadron	~8–9 MiG-23MLD	
Thaleh	**73rd Fighter-Bomber Brigade**		
	945 Squadron	~7–8 MiG-21bis/UM	
	946 Squadron	~7–8 MiG-21bis/UM	

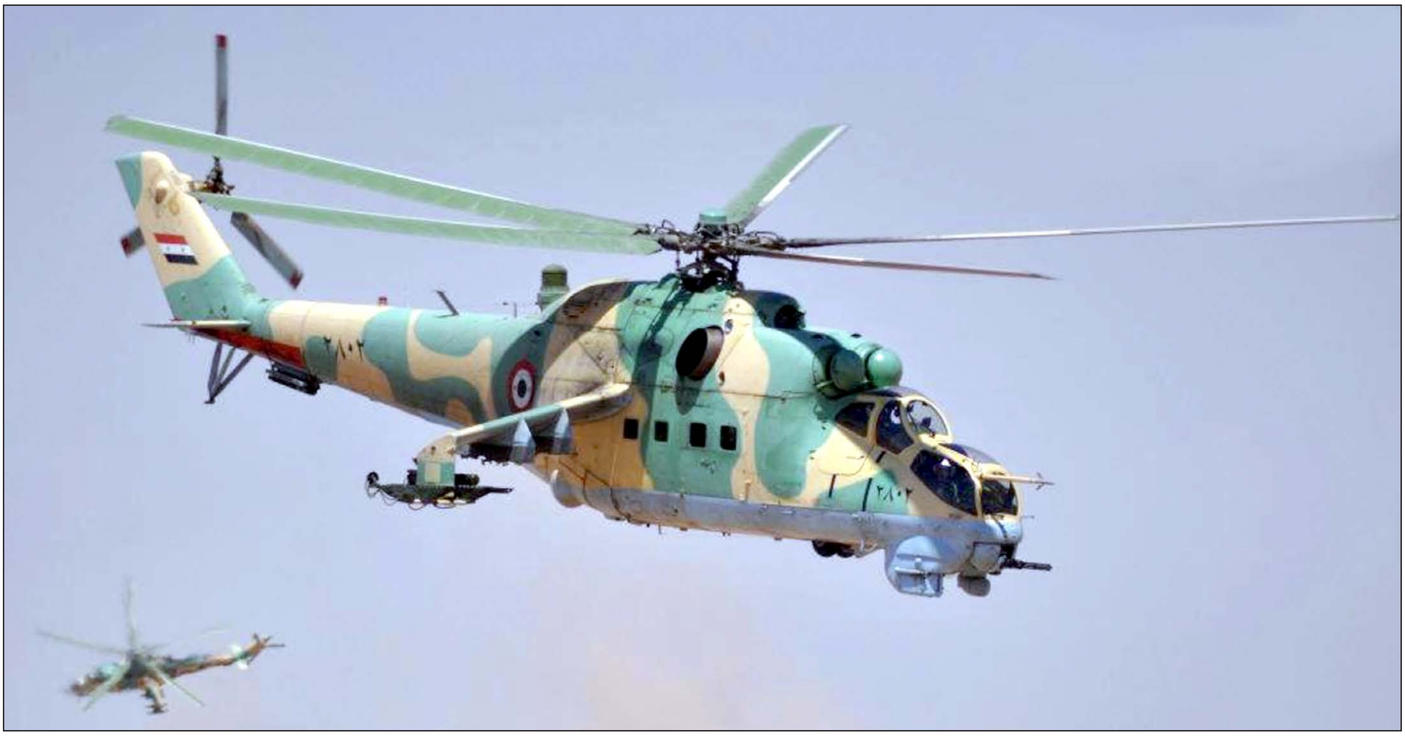
Table 3: Major Aircraft Types of the SyAAF, 2011[3]

Aircraft/Helicopter type	Number of available airframes & Remarks
Mi-8/17	150 available; some 20 undergoing overhauls in Syria
Mi-25	22; at least 3 still undergoing overhauls in Russia
Mi-14	12–14 available, only 5–6 operational
L-39	50 available
MiG-21bis	60 available; 30 additional aircraft in storage
MiG-23BN (fighter-bombers only)	40–50; 30 additional aircraft in storage
MiG-23MF/ML/MLD	30 available; 20 additional aircraft in storage
MiG-25 (all variants)	None operational, 2 MiG-25R reconnaissance fighters returned to service
MiG-29	20 available, 12–15 undergoing overhauls
Su-22M-3/4K	30–40 available
Su-24M	21 available, 12–15 undergoing overhauls (some in Russia)
Transports	10–12, including An-26, Il-76, Yak-40, but some stored

to specific units – primarily those flying MiG-23BNs – renowned for being ‘spent’ in combat if and when required. Contrary to expectations, the SyAAF had thus displayed an absolute minimum of dissent since the start of the unrest in Syria. In two years of war, the SyAAF has lost fewer officers to desertion – only about a dozen active pilots and several mid-ranking officers – than the AFI. This was one of the biggest surprises of this conflict, even more so because through all this time specific squadron commanders (and their deputies) received operational orders not from their superiors, but from the Ba’ath Party HQ in Damascus.

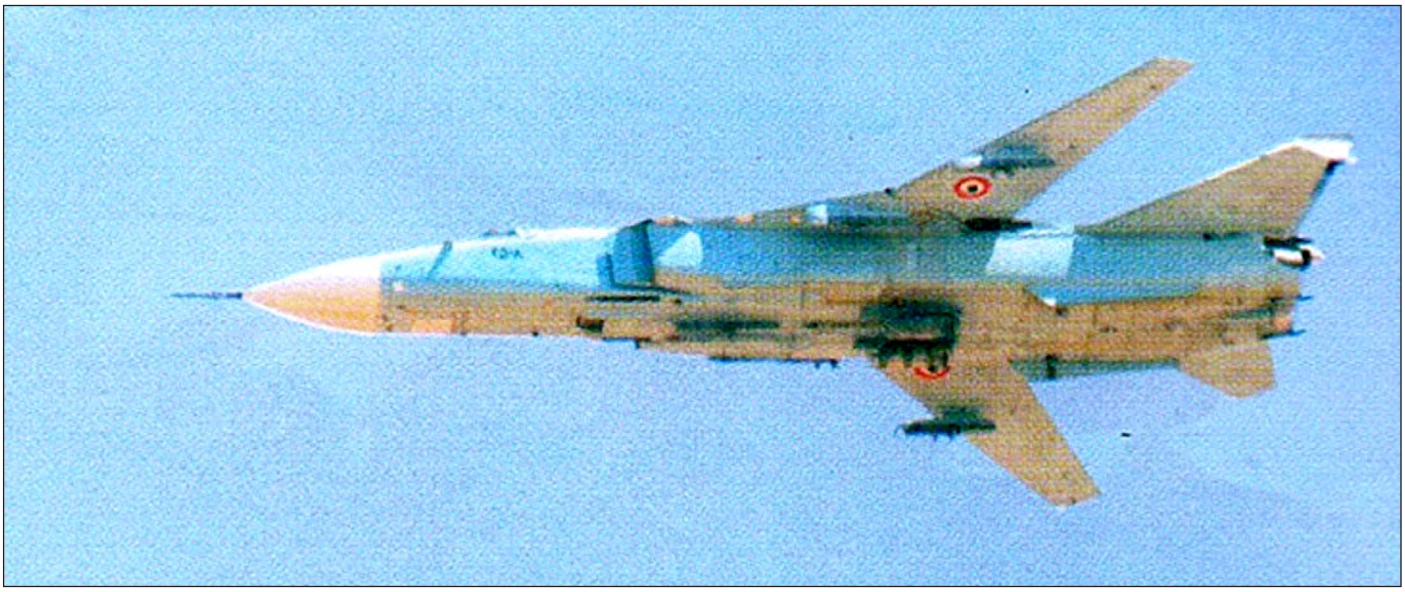
Irrespective of operating obsolete aircraft, and despite many foreign assessments supposing ‘historical maintenance issues’, the SyAAF as of 2011 was a small, yet compact, well-trained and well-maintained force. Supported by ‘The Factory’ – a major overhaul facility at Nayrab AB (Aleppo IAP) capable of maintaining all aircraft and helicopters in service – it had a well-developed maintenance infrastructure capable of local overhauls and upgrades of all available combat aircraft and helicopters, and of manufacturing spare parts. Additional spare parts – often including entire assemblies – were acquired from Belarus and Ukraine during the 1990s and 2000s. Nevertheless, the SyAAF did experience a lengthy period of neglect by the government during that time, and as of 2010–2011 was in the process of overhauling and reconditioning most of its aircraft and helicopters. While most corresponding work was undertaken at home, types like Mi-25s and Su-24MKs were overhauled and upgraded in Russia.

As of 2011, the SyAAF was under the command of Major General Isam Hallak (hero of the 1973 War with Israel, replaced by Major General Ahmad Balloul a year later). It used to have 13 squadrons of combat aircraft, 14 squadrons of helicopters and three transport units organised into three (alpha-numerically-designated) operational divisions, and the training command.[2] Nominally, each fighter/fighter-bomber squadron and each helicopter squadron should have operated 12 aircraft, but some

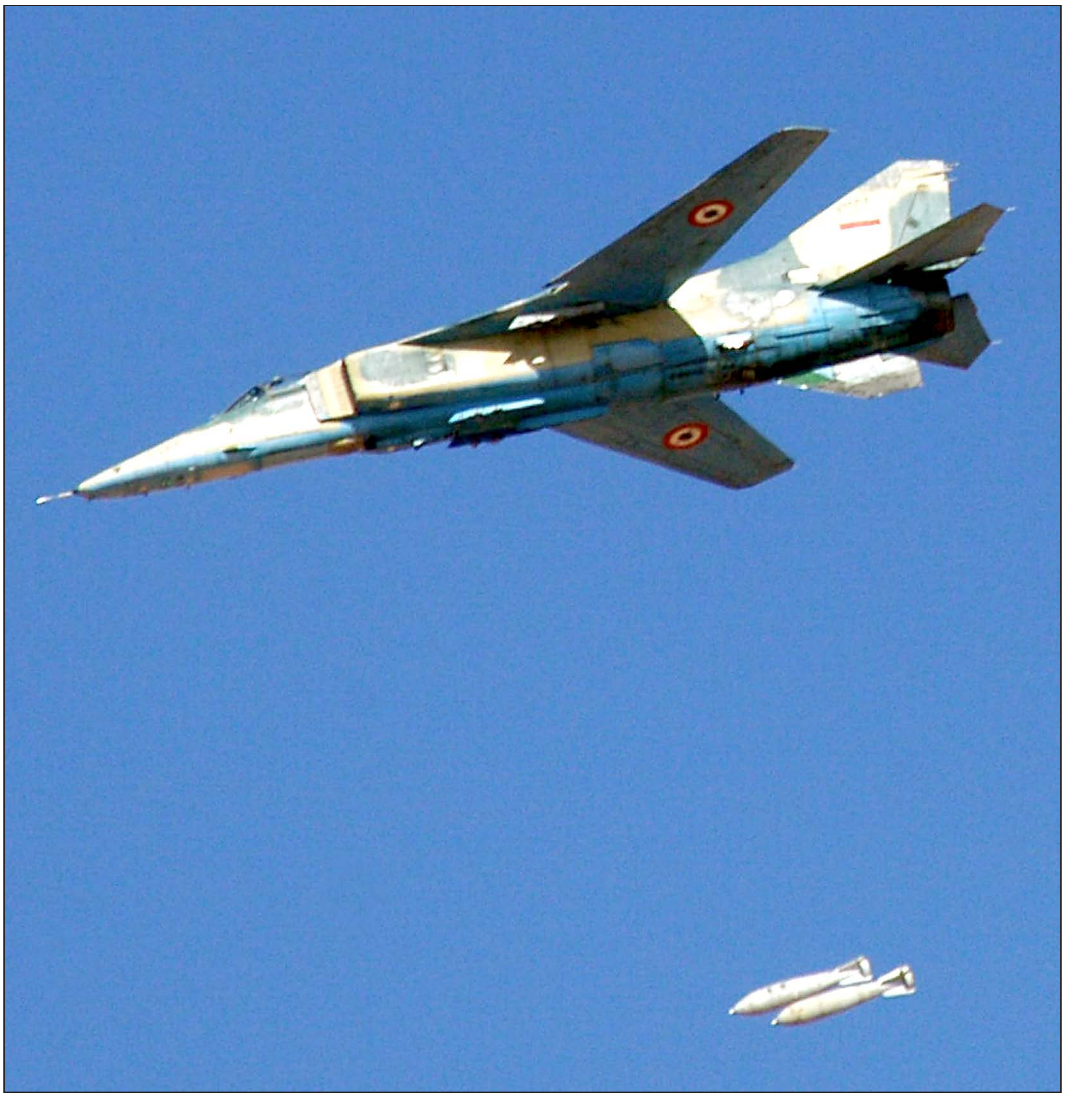


A Mi-25 (serial number 2802), operated by either No. 765 or No. 766 Squadron from Bley AB (better known as Marj Ruhayyil in the West). After most of the fleet was overhauled in Russia in 2009 and 2010, it saw intensive combat deployment all over Syria from the second half of 2011, with small detachments of 2–3 helicopters regularly operating from Hmemeem, Afis, Abu ad-Duhor, Hama, Tha'leh, Dayr az-Zawr, Almazza and Khelkhleh, amongst others. (Syrian Ministry of Defence)

A heavily fortified air defence complex, including an SA-2 site protecting Damascus IAP, as seen in 2009. The ADD suffered a spate of defections in 2011 and 2012, and dozens of SAM and radar sites were overrun by insurgents. Others were transformed into artillery bases for the loyalists and a few of its units were relegated to infantry duties. (Photo by Tom Cooper



Although interceptor types like the MiG-21bis, MiG-23MF/ML and MiG-29 had played the most important role within the SyAAF during previous decades, recently overhauled and upgraded Su-24MK2 fighter-bombers like this example (serial number 3508) flew most air strikes against insurgent strongholds from mid-2012. (Syrian Ministry of Defence)



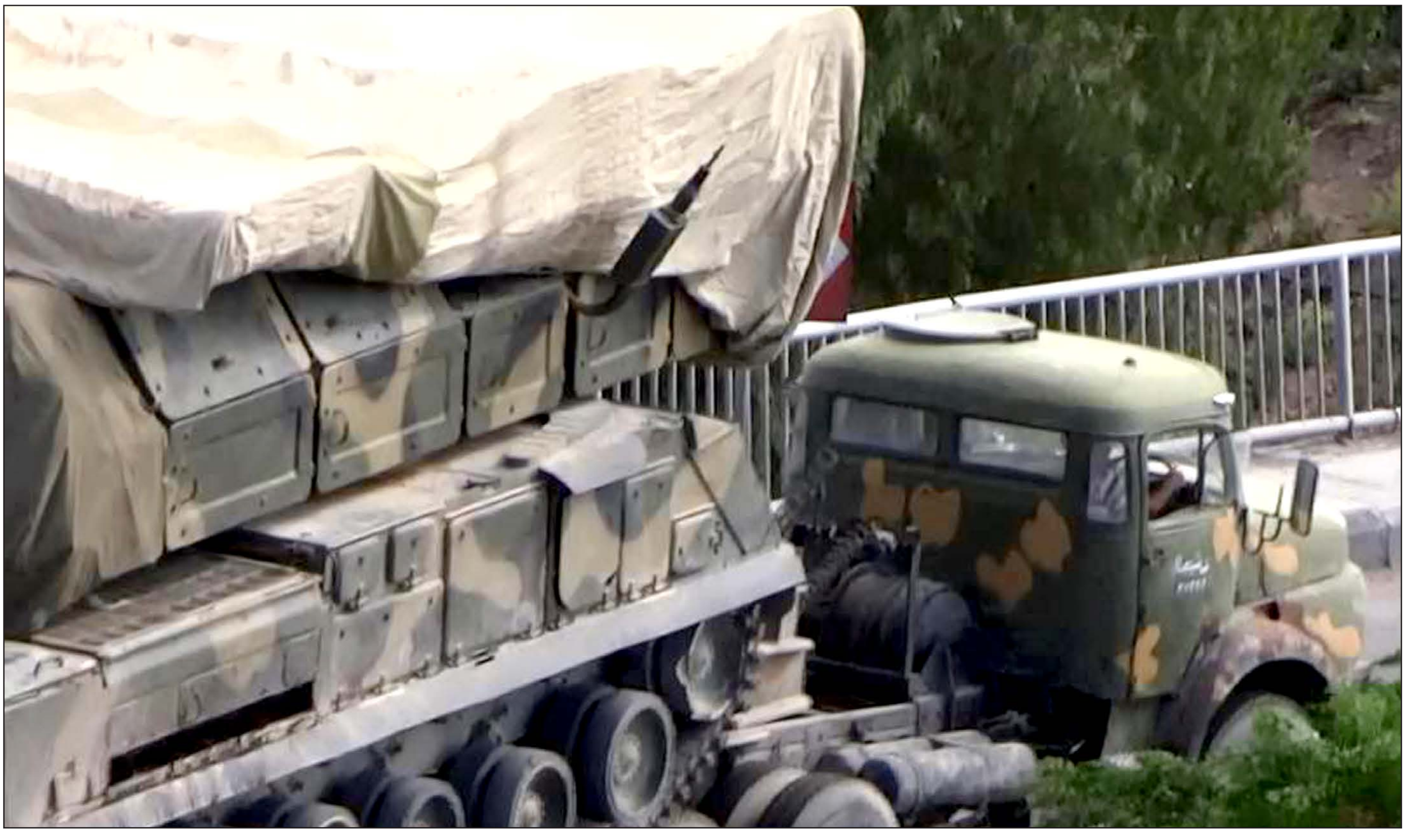
Less numerous than Su-22M-3Ks and Su-22M-4s, SyAAF MiG-23BNs proved longer-ranged than the Sukhoi design, and were thus used to strike targets in distant areas, primarily around Dayr az-Zawr during the summer of 2012, being intensively deployed in the Damascus area for the rest of that year. This example (apparently serialled as 1679) was photographed while releasing two FAB-500M-62 general-purpose bombs over Rif Dimashq in autumn 2012. (via R.S.)

A Mi-8T armed with four UB-16-57 rocket pods seen in flight over the town of Azzaz on 25 July 2012. After falling under insurgent control, two days later, Azzaz was subjected to several ground attacks and then a campaign of terrible bombardment by the SyAAF, which left hundreds of civilians dead. (via R.S.)

units were under-strength, while others – like the Su-24-equipped No. 819 Squadron – operated additional equipment. Details of the organisation and equipment of the SyAAF as of 2011–2013 are provided in Tables 2 and 3.

The once mighty Air Defence Force (ADF) suffered heavily due to negligence and lack of funding during the 1990s and 2000s. Established as a separate branch of the Syrian military in the spring of 1973 (during preparations for the October 1973 War with Israel), it was reassigned to the SyAAF as the Air Defence Directorate in 2011.[4] At the peak of its strength, in the late 1980s, this command consisted of about 35 air defence brigades, each including at least four, some as many as six SAM-battalions (each battalion operated one SAM-site), and a well-developed early warning radar network that used to be one of the most advanced in the Middle East. As such, the ADF exercised operational control over ground-based air defences and manned interceptors administratively assigned to the SyAAF.

What was left of this force as of 2011 was still organised into one air defence division, supervising six air defence zones that covered the entire territory of Syria.[5] Because of the withdrawal from service of older systems – like SA-2s (S-75 Dvina) and SA-5s (S-200 Volga) – and block obsolescence of such systems as the SA-3 (S-125 Pechora) and SA-6 (3M9 Kvadrat), the number of operational brigades was more than halved. However, with the help of Iranian financial support, the reorganised Air Defence Directorate (ADD) received not only a much leaner organisational structure but was also much better equipped. From 2008, the Syrians purchased 8 SA-17 Grizzly (Buk-M2E)



A rare photograph taken in May 2013 of a SA-17 Grizzly TELAR (with the launch rails installed on the top of the vehicle covered by a tarpaulin) belonging to one of eight such batteries operated by the Air Defence Directorate of the SyAAF. Most such systems were concentrated in the Damascus area. Their presence did not prevent the Israeli Air and Space Force from launching a number of standoff attacks against selected targets inside Syria in 2012 and 2013. (via M.Z.)

batteries, and about 20 SA-22 (Pantsyr-1S) systems from Russia. Furthermore, some SA-3 sites were upgraded to Pechora-2T standard with components purchased from Belarus, while most of the remaining SA-6 sites were upgraded through the integration of elements of the Kub-M4 system (ASCC/NATO codename 'SA-11 Gadfly'), or addition of a second 1S91 SURN fire-control radar (ASCC/NATO codename 'Straight Flush'). The ADD experienced the same spate of defections as the Army in 2011, and several of its battalions were subsequently deployed as infantry (usually corseted by the intelligence services).

GRADUAL ESCALATION

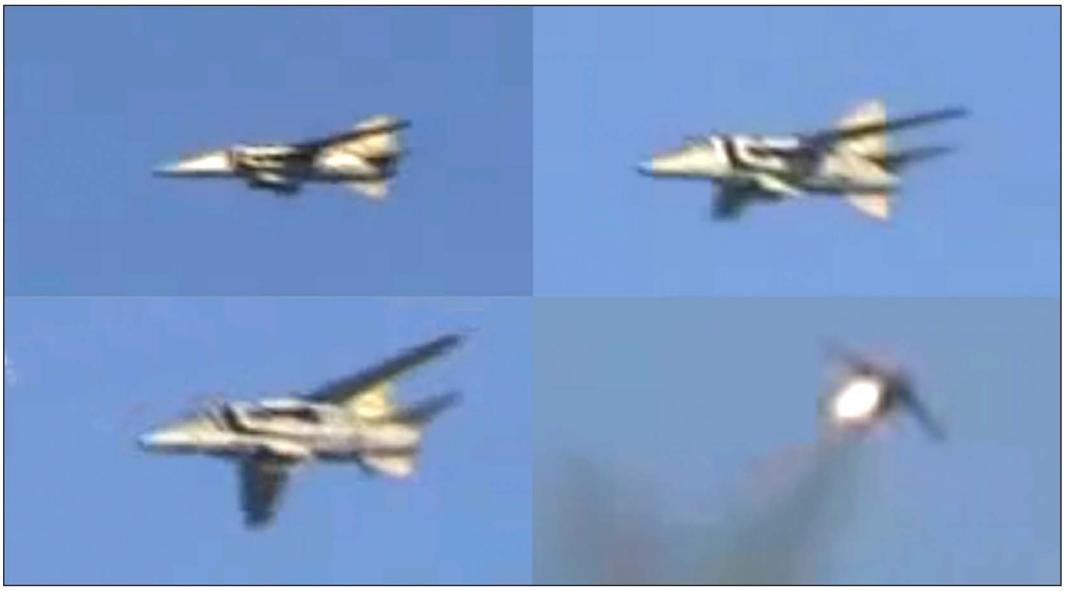
The SyAAF participation in the civil war experienced a gradual escalation. Deployment of helicopters for transport purposes dominated in 2011, but intensified through the early 2012, when attacks on neighbourhoods, towns and villages controlled by insurgents became as common as resupply flights for garrisons isolated by insurgent advances. Correspondingly, the first losses that the SyAAF suffered during this war were all related to Mi-8 and Mi-17 helicopters. Interestingly, the relatively large fleet of French-built Aérospatiale SA.342 Gazelle light helicopters was deployed only sparingly, primarily over Dera'a Province in the spring and summer of 2011, and hardly ever seen ever since.

Meanwhile, most other units were undergoing an intensive process of overhauling and upgrading their aircraft, obviously preparing for 'the inevitable'. Amongst others, most surviving Mi-25 helicopter gunships were overhauled in Russia, followed by most of the SyAAF fleet of 21 Su-24MK fighter-bombers (upgraded to Su-24MK2 standard at the 514 ARZ plant in Rzhev).[6] Similarly, most remaining MiG-29s were brought to MiG-29SM standard at 'The Works' at Nayrab AB, with the help of assemblies delivered from Russia.

'The inevitable' came in summer of 2012, when Damascus, Aleppo and Dayr az-Zawr came under a near-simultaneous assault. Already in a state of chaos due to the scattered deployment of its major units (necessary in order to prevent unit-level defections), and overstretched because of the need to maintain a presence in all of Syria, the government found itself in a situation where it lacked the troop strength and firepower to drive insurgents out of major urban centres. Indeed, its armour and indirect fire proved unable to stop insurgent advances, and because of this the SyAAF was ordered into action.

The first area to see intensive aerial strikes was Dayr az-Zawr. A series of defections by top AFI officers and military commanders resulted in near collapse of local security structures and the emergence of several large insurgent formations between 20 July and 3 August 2012.[7] The SyAAF deployed MiG-23BNs and Su-24MKs to bomb suspected insurgent concentrations and HQs on 24 July, but these primarily hit private homes, killing scores of civilians. With family and tribal ties being particularly strong in this part of Syria, bombardments caused ever more outrage and most of the defectors joined the insurgency. With the help of the intelligence they provided, the Qaqaa Brigade attacked and destroyed the HQ of the Political Security Branch in the city, together with several armoured vehicles deployed for its protection, on 8 August 2012. With help of captured weapons, additional insurgent units came into being, including the Otham Ibn Affan Battalion of the Ahfad Muhammad Brigades, which created a number of 'technicals' by installing 14.5mm heavy machine guns on the rear platforms of their 4WDs. During the following days this unit began setting up ambushes for SyAAF fighter-bombers which, expecting no serious resistance, continuously operated at low altitudes. On 13 August, a MiG-23BN flown by Colonel Mohammad Suleiman attacked Mohasan, a village outside Dayr az-Zawr, and his aircraft

A SyAAF L-39 light striker pulling up from an attack on south-eastern Aleppo in mid-September 2012. Throughout the first four months of the war, at least two L-39s from either Kweres or Ksheesh ABs were airborne over the city throughout every single day. (via R.S.)



A sequence of stills showing the downing of the MiG-23BN flown by Colonel Suleiman over Mohasan on 13 August 2012. This was the first SyAAF fighter-bomber shot down in this war. (FSyA release)

was hit by machine gun fire. The pilot ejected and was captured shortly afterwards. The insurgency thus scored its first confirmed claim for a SyAAF fighter-bomber in this war.

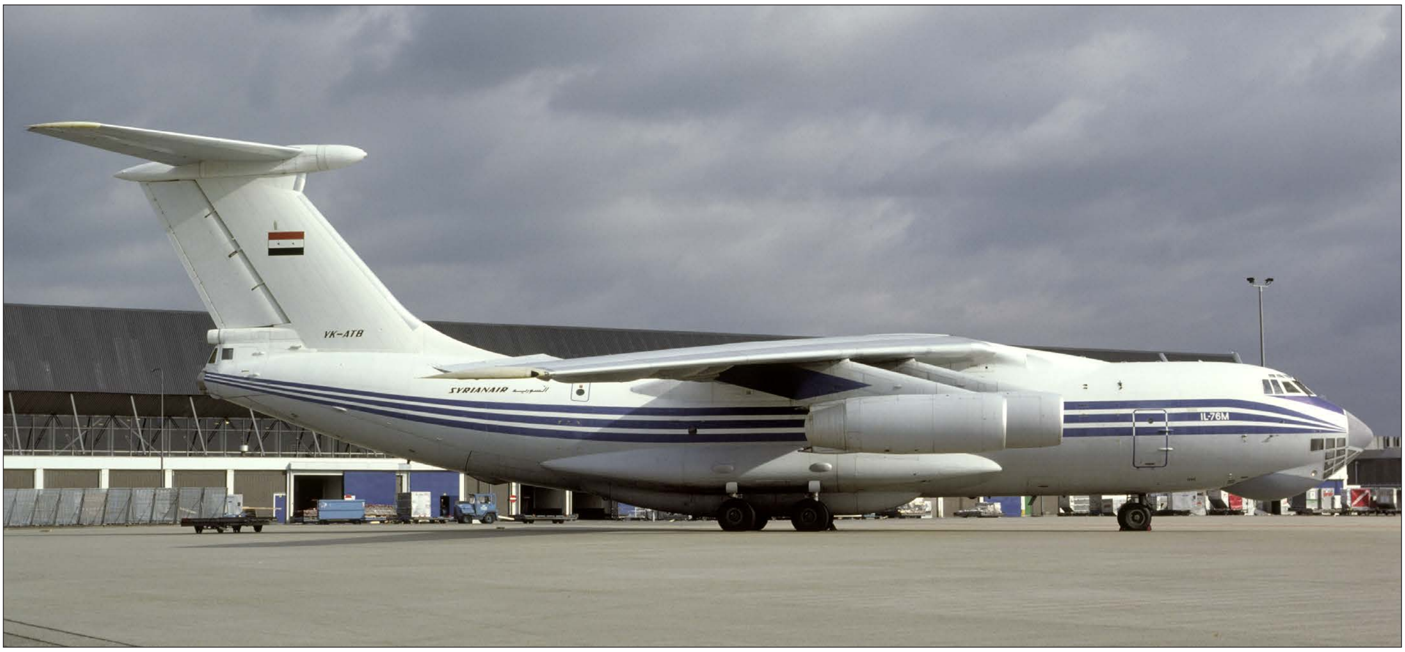
The SyAAF's freedom of operation over north-eastern Syria further deteriorated when insurgents overran the garrison of al-Bukamal, a town on the Euphrates River some 110km south-east of Dayr az-Zawr, on the opposite side of border from the Iraqi town of al-Qaim, later in August. It was here that the first stocks of Russian-made SA-7 MANPADs were captured. Therefore, it is unsurprising that it was in north-eastern Syria where the SyAAF lost its first Su-22 (and its pilot) on 5 September 2012.

Meanwhile, the SyAAF began deploying Su-22s to hit densely populated quarters in Anadan, Azzaz and al-Bab, attempting to punish the local population for supporting the uprising, while Su-24s began bombing local military bases that were overrun by insurgents in order to destroy extensive stocks of ammunition and supplies abandoned there. Mi-8 and Mi-25 helicopters and L-39 light strikers provided support for loyalist troops encircled at Minakh AB. Azzaz was particularly heavily hit by four Su-22s on 15 August 2012, which killed dozens of civilians.

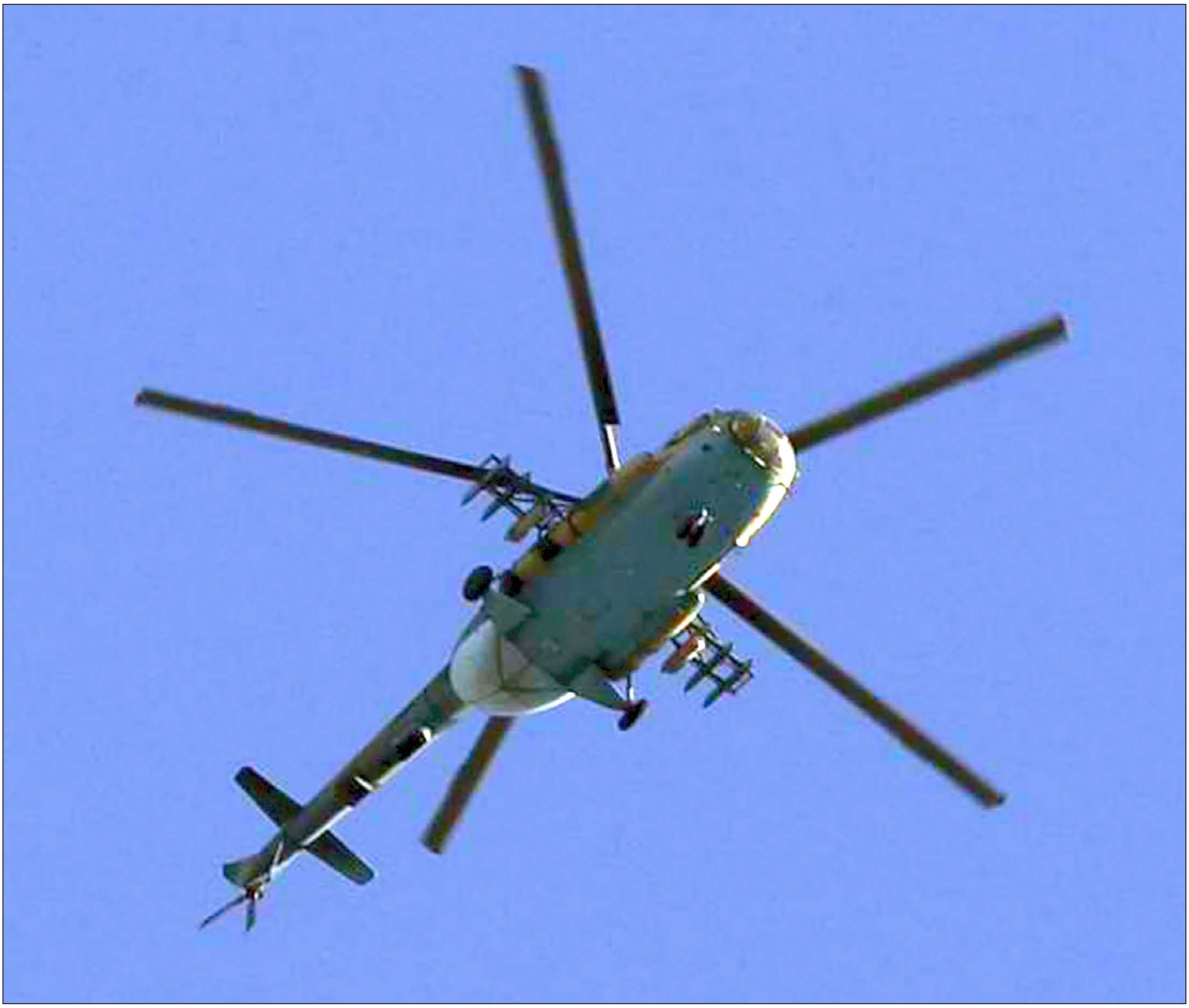
The situation inside Aleppo proved more problematic – for both sides. With the help of a well-developed network of informers, the SyAAF experienced little problem in tracking and finding major insurgent concentrations, headquarters and bases. However, the presence of lots of foreign journalists made Damascus reluctant to deploy heavier fighter-bombers for attacks against targets inside the city. Furthermore, the SyAAF stocks of precision guided munitions (PGM) were traditionally low, primarily for lack of funding, while heavier and less manoeuvrable fighter-bombers proved unable to deliver unguided weapons with the necessary precision. Therefore, for the first few weeks of fighting inside this city, the brunt of aerial warfare over Aleppo fell to SyAAF units equipped with L-39s based at Kweres and Ksheesh ABs.

As in Dayr az-Zawr and around Aleppo, L-39 pilots primarily attempted to bomb insurgent HQs and bases, but they flew ever-more punitive attacks, targeting bakeries and hospitals. During late July and early August 2012, they encountered next to no resistance because the opposition not only lacked suitable weapons, but also training and practice in engaging fast jets. Correspondingly, the L-39s – which usually operated in pairs – were free to roam the skies as they wanted. Between 18 and 21 August for example, they hit the same insurgent HQ inside Aleppo no less than four times, while Mi-8s and Mi-25s heavily bombed Sallahaddin, Saif ad-Dawla, and Soleimaniyah Districts. During this period, Nayrab AB/Aleppo IAP was also still secure enough to permit landings of Ilyushin Il-76 transports, which brought much needed supplies and reinforcements. The situation changed after the opposition overran Camp Hanano in the north-eastern outskirts of the city on 7 September 2012, capturing not only additional stocks of ammunition but also a small number of SA-7s.

The month of August 2012 saw the first SyAAF interventions on a number of other battlefields around Idlib Province. On 14 August, the government deployed a convoy consisting of companies



Most Il-76 transports of the SyAAF wore SyrianAir markings, like the example here, registered as YK-ATB and photographed in the 1980s. The fleet spent much of the 2000s grounded at Damascus IAP, but was in the process of reactivation at the start of the war and saw heavy utilisation since. (Joe Dede Collection)



A SyAAF Mi-8, armed with what appears to be two FAB-100-120 bombs on inboard pylons, photographed while underway low over the Sakhur district of Aleppo in late August 2012. (via R.S.)

from several mechanised units from Idlib in the direction of the Bab al-Hawa crossing of the border with Turkey. This site was captured by insurgents of the Dera'a al-Thawra Brigade in May but abandoned upon Turkish insistence. It was recaptured in mid-July but by then the military had constructed a strongly fortified position within the old border crossing a few kilometres away. The 30 kilometre journey from Idlib to Bab al-Hawa proved arduous for the loyalists, with their column being ambushed three times – in M'arat Misrin, Hazano and Batbo – losing vehicles and personnel before having to stop. On the next morning, the garrison in Bab al-Hawa launched a breakout attempt, dashing in the direction of Idlib. This column was ambushed too, losing armoured vehicles, trucks and troops all the way. Eventually, only a bedraggled collection of about 500 survivors reached Idlib, leaving behind at least three T-55s, a T-72M1, an ARV armoured engineering vehicle, three BMP-1s, a BTR-60 or BRDM, an armoured truck on a LandCruiser chassis and about a dozen other vehicles, over 100 casualties, two T-55s, two T-72s and a T-62, and plenty of equipment and ammunition abandoned.[8] Thanks to captured weaponry, the insurgents subsequently assaulted a number of government strongpoints around Ariha and Jabal az-Zawiya, causing additional heavy losses in men and material. After this fiasco, the leadership of the Ba'ath Party issued a direct order to the HQ SyAAF in Damascus and units based at Hama AB to launch an indiscriminate bombing campaign against the outskirts of Idlib and nearby villages, Ariha, Jabal az-Zawiya, Ma'arat an-Numaan and several other towns. The purpose of these attacks was to punish the local population for their resistance and drive it out of the area.

During mid-August 2012, the SyAAF also become involved in fighting in Damascus, Rif Dimashq and Homs Provinces. Rastan and Talbiseh were subjected to heavy strikes by Mi-25s and MiG-21s, but after local insurgents obtained a number of SA-7s, the SyAAF introduced the practice of only deploying high-flying Su-22s and Su-24s over this area. Further south, on 15 August 2012, the entire 2nd Battalion of the 55th Brigade ADF, based in Dmeyr, defected to the insurgent side, prompting the SyAAF to order Su-22s and MiG-23MFs from the nearby air base to bomb that town too, without regard for the families of the involved pilots and ground personnel. Obviously, this caused not a little consternation and even some resistance within the ranks of the air force, but any dissent was kept under control by the AFI, and repeated orders from the Ba'ath Party – which foremost relied on its members within operational squadrons of the SyAAF, expecting them to 'lead by example'.[9]

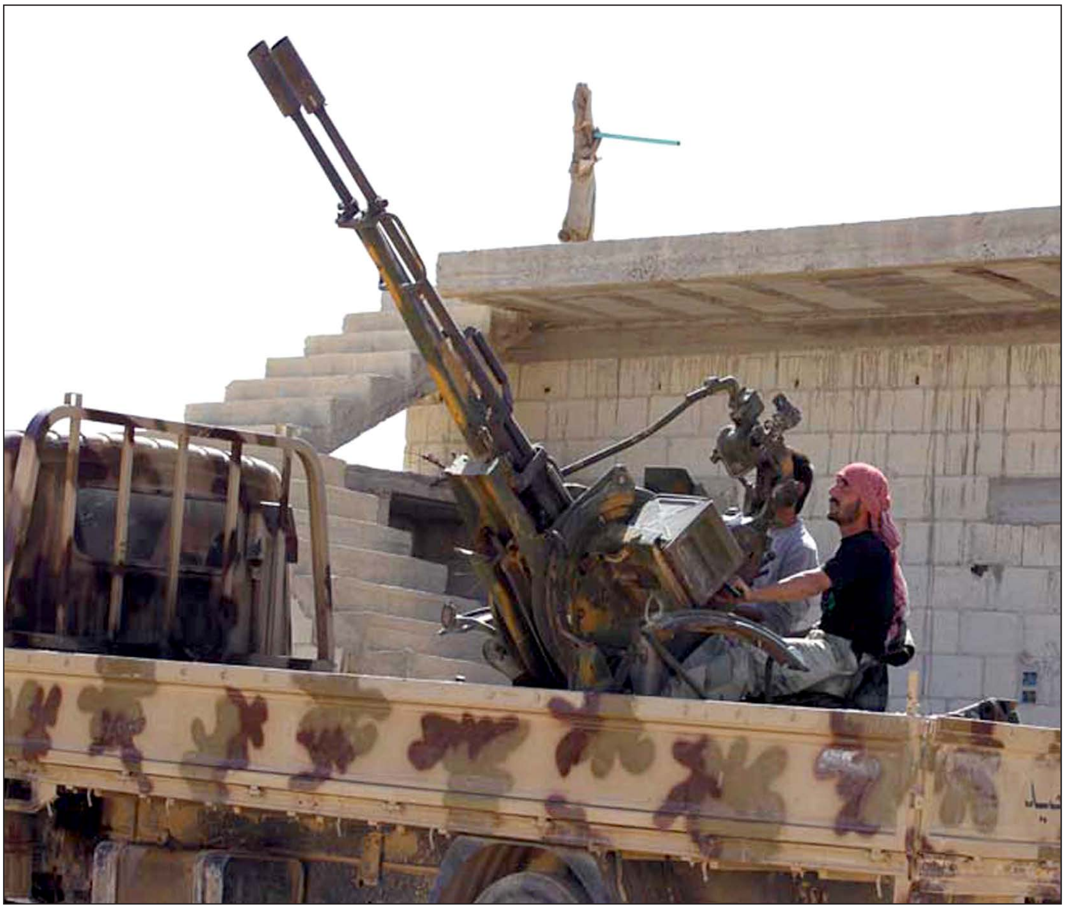
SEEDS OF RIFT

Due to continuous defections from the military, the FSyA reached a nominal strength of about 60,000 combatants between June and August 2012, organised in about 80 battalions, some of which began specialising in tasks such as logistics, transport or medical support. Its command structure remained decentralised: the small cadre of top officers was evacuated to Turkey, which offered some support but by far not what the insurgents expected. On the contrary, the failure of the offensive on Damascus, stalemate in Aleppo and pressure from foreign powers began causing a number of rifts within the insurgency during the summer of 2012.

Because it was established as an apolitical and non-religious organisation and insisted on toppling the government before leaving it to the Syrian population to decide what form of government and religious order it would have in the future, the FSyA found itself on the receiving end of much pressure from abroad. While the position of the officers that established this organisation was unsurprising to Syrians – who in the last 60 years had never had a chance to learn to think about the future beyond the end of the current month – this situation was unthinkable for most of its

This BMP-1 was captured by insurgents of the 'Dawn of Islam Brigades' (as shown by the inscription on the side of its hull) in Ma'arat an-Numaan when that town was brought under their control in September 2012. Like so many other insurgent units, the Dawn of Islam pledged an alliance with the FSyA early on, only to join one of the umbrella organisations with Islamist ideology at a later date. (via Y.A.)

potential foreign supporters: they insisted the FSyA subject itself to various political and religious ideals. The Turkish government of Premier Minister Recep Tayyip Erdogan began imposing ultimatums upon the FSyA leaders to accept the leadership of the Moslem Brotherhood as early as November 2011. The officers around Riyahd al-Assad first refused to obey, but eventually agreed to coordinate their activities with civilians of the Syrian National Council (SNC). This coalition of about 140 opposition figures – some 90 of whom were living outside Syria – primarily included members of the Moslem Brotherhood, but also a few Kurds, Assyrians and others, and was based in Istanbul, Turkey. For the reasons described above, not only the FSyA, but the majority of activists and various ethnic and tribal leaders had no affiliations with such 'older' political ideologies as those of the Brotherhood. Correspondingly, most of them could neither understand nor accept the leadership of a group of politicians unknown to them.


The war in Syria resulted in widespread proliferation of so-called 'technicals' on both sides of the conflict. This Toyota truck was modified through the installation of a 23mm ZU-23-2 on its flatbed while operated by one of the insurgent units active in the Aleppo area and allied with the Syrian Islamic Liberation Front. It later allied with the Islamic Front during the second half of 2012. In addition to being used for air defence, such weapons are primarily used for ground warfare. (IF)

With Western powers succumbing to government PR campaigns and campaigns run by its foreign supporters about all insurgents being 'Islamic extremists', and refraining from getting involved, official – and unofficial and usually private – efforts of various interest groups from abroad resulted in the appearance of a number of splinter groups, usually led by civilians or low-ranking defectors, with undeniable ideological – primarily Islamist – motivation. Following the Turkish example, official and unofficial 'interest groups' from Saudi Arabia, Qatar and Kuwait began to search for ways of establishing themselves in control over various parts of the insurgency.

During the summer of 2012, the Turkish-supported Moslem Brotherhood began channelling the majority of funds to selected Islamist groups nominally under the control of the FSyA. Some large insurgent formations – primarily the Idlib-based Suqour ash-Sham Brigade – complained bitterly, but to no avail. The ideals of the FSyA attracted foremost Sunnis, many of whom were religiously conservative. While they did not consider themselves to be any kind of 'Mujahidin' or stereotypical Islamic extremists and their general goals were secular, Islam provided them with inspiration and strength. Nevertheless, under pressure from abroad, some groups soon began superimposing Islamic ideals for little reason other than the satisfaction of their foreign donors. Over the time this became a norm, resulting in ever-better financing that enabled a number of insurgent units that had pledged allegiance to the FSyA to grow and became capable of operating in multiple provinces, entirely independently from the supposed leadership. This was an opportunity eagerly exploited by not a few outside powers to be.

Suqour ash-Sham thus became one of the first major insurgent units operating independently from the FSyA. During August 2012, a large part of the insurgent units operational in Damascus followed this pattern and grouped within what became known as the Syrian Islamic Liberation Front (Jabhat Tahrir Suriya al-Islamiyyah, SILF), developing one of the strongest armed coalitions in Syria by the end of that year. Foreign donors in Arab countries along the Persian Gulf reacted by bolstering their support for this new organisation, eventually making it powerful enough to bring districts of Darayya, Hajar al-Aswad and Moadamiyeh under its control by 22 August, and launch several attacks on the major government stronghold at Almazza AB. When the fighting spread along the highway to Damascus IAP towards the south, and Arbeen, Jobar, Kfar Souseh and Zamalka came under insurgent control too, the government reacted by deploying the RGD and intelligence operatives in a brutal attack on Kfar Souseh. Supported by Mi-8/17 helicopter gunships and MiG-21s from Khelkhleh AB, this was successful in pushing the insurgents out, but primarily marked by the widespread summary executions of hundreds of civilians.

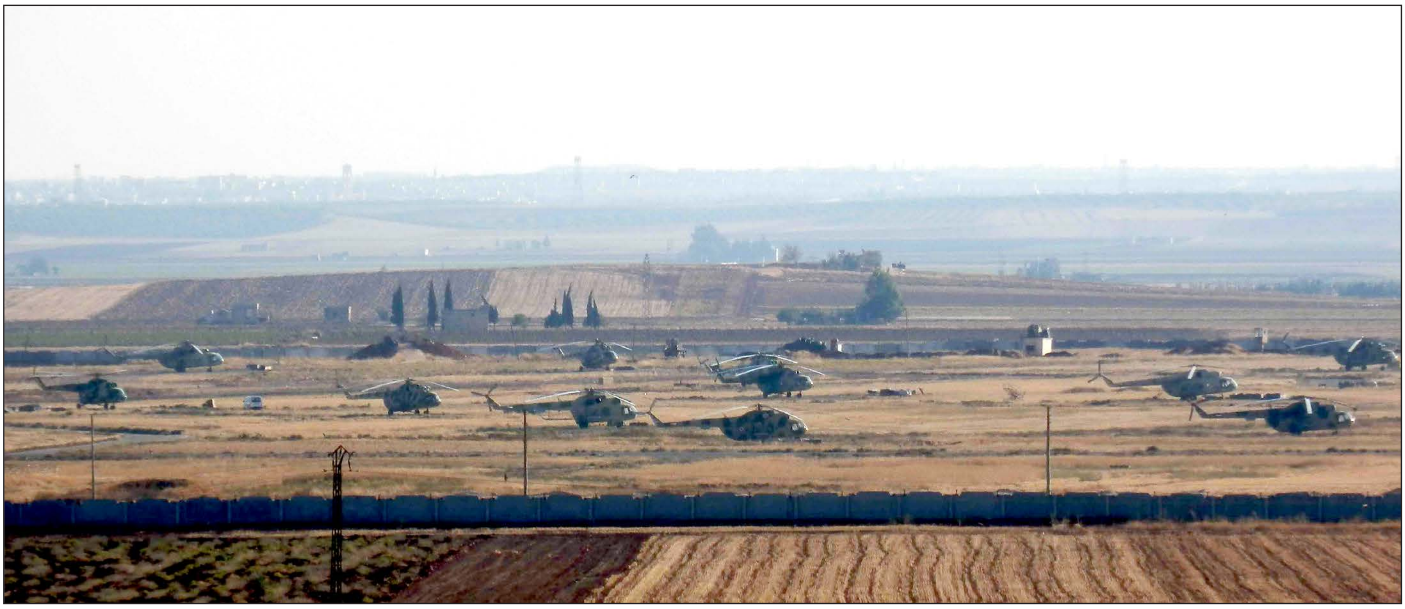
Meanwhile, Saudi Arabia opened negotiations with various insurgent factions, attempting to establish an organised structure with a well-defined chain of command, including experienced and authoritative officers with legitimacy from earlier combat against government forces. However, the authority of the emerging 'Joint Command' was nearly instantly undermined by the Qatari decision to focus upon aiding regional Military Councils directly, instead of down the chain of command, to which the Saudis reacted by exercising direct control over the top and appointing their own favourites in command of areas where they previously exercised no influence. In turn, this angered many insurgents who felt that the new leadership had been forced upon them and preferred to elect their own leaders. Eventually, this resulted in the emergence of two Military Councils in most parts of Syria, together with all the related rivalry and infighting. Only partially solved through creation of the Supreme Military Council (SMC) in November 2012 – officially a military body operating on behalf of the Syrian Opposition Coalition, with Brigadier General Salim Idriss as the most prominent representative – the rivalry between Saudis and Qataris remained a dominant issue and the primary reason for the factionalisation of the insurgency ever since, coupled with a surge in religiosity and sectarianism. Following the example of the Suqour ash-Sham Brigade, the Farouq Brigade in Homs declared itself independent from the FSyA, while Syrian Salafists began organising themselves into groups like the Islamic Movement of the Free Men of the Levant (Harakat Ahrar ash-Sham al-Islami), and the Support Front for the People of Levant by the Levantine Mujaheddin on the Battlefields of Jihad (Jabhat an-Nusra il-Ahl ash-Sham min Mujahedi ash-Sham fi Sahat al-Jihad – usually shortened to an-Nusra Front, Jabhat an-Nusra, or JAN). Finally, dozens, then hundreds and then thousands of Jihadists from abroad began entering Syria, where most of them joined the Wahhabist 'Islamic State of Iraq and ash-Sham' (ISIS).

Cooperating at first, JAN and ISIS subjected them to such a murderous series of assassinations, and intensive subversion, that most were annihilated, or at least marginalised by mid-2013.

It was under these circumstances that – because of the general chaos, lack of funding, lack of equipment and lack of means of communications – the FSyA lost control over large parts of the insurgency. Unknown at that time, it was to forever remain an idea, a catch-all brand referring to armed opposition in Syria in general. Although dozens of battalions and – later on – many powerful brigades and provincial Military Councils continued declaring their allegiance to this organisation, the FSyA never became even a franchise, and certainly not a coherent organisation with a clear, unified command structure, exercising control over operations in all of Syria. Worse yet, as subsequent developments were to show, this series of events from the summer of 2012 was to signal the end of the revolution and genuine insurgency against the government of Bashar al-Assad, and the start of the Syrian War, which eventually conflagrated into a major crisis involving powers in the Middle East and beyond.

ALL-OUT EFFORT

The activity of the SyAAF helicopters in support of garrisons isolated deep within areas controlled by insurgents, and attacks by L-39s and MiG-21s against insurgent-held areas in Aleppo and Idlib provinces resulted in the exposure of all these assets to increasing volumes of ground fire. Recognising the air force's impact on the battlefields, the insurgents reacted with a series of attacks on SyAAF air bases. On 27 August, a Mi-8 was shot down by insurgent-operated ZU-23s over the Qaboun District in Damascus. Another Mi-8 and a L-39 were shot down over Aleppo province within the following 24 hours. Early on 28 August, the Ahrar ash-Sham brigade raided Afis AB (better known in the West as 'Taftanaz') for the first time, claiming the destruction and damage of 10 Mi-8s on the ground. Other insurgent groups put Abu ad-Duhor AB under siege and shot down two MiG-21s and damaged one Ilyushin Il-76 transport while it was landing there with supplies, between 30 August and 4 September. The Abdullah Ibn Salam Popular Defence Group overran the SA-5 SAM-site outside Aftarees in Eastern Ghouta (in Rif Dimashq Province) on 27 August. Three days later the Mansour Battalion and Tawhid Brigade raided Kweres AB, east of Aleppo, destroying two L-39s and a Flamingo basic trainer, damaging two helicopters and causing up to 50 casualties to Air Defence Regiment 111. In all cases, the SyAAF reacted with a vicious bombardment of the installations in question and nearby populated areas, forcing the insurgents to withdraw, but eventually it was forced to cease operating helicopters over Damascus, Aleppo, Rastan and Talbiseh for the time being. L-39s from Ksheesh AB continued intensive operations over Aleppo, nevertheless, suffering four confirmed losses by the end of September.



No fewer than 11 Mi-8s and Mi-17s can be seen in this photograph of Afis AB taken before this base was raided by insurgents on 28 August 2012. A review of photographs and videos taken before that raid and documents captured after the fall of Afis AB in January 2013, have shown that No. 253 Squadron lost Mi-8Ts serialled 1282, 1291, 1371 and 1387, and Mi-17s serialled 2921, 2922, 2924, 2926, 2931, 2936, and 2938 in August 2012. The sister-unit, No. 257 Squadron, lost Mi-8Ts serialled 1277, 1283, 1374 and 1381, and Mi-17s serialled 2902, 2904, and 2911. (FSyA release)

Two stills from different videos showing the SyAAF Mi-17 shot down over the Qaboun district of Damascus on 27 August 2012, and the insurgent Hebah al-Homsi who scored that kill using a ZU-23-2 installed on a technical. (FSyA)

The de-facto loss of air bases like Abu ad-Duhor, Afis and Kweres resulted in the SyAAF deploying Su-24s over Aleppo and Idlib because targets in these areas were outside the range of most other fighter-bomber types. This was the reason why about a dozen of the available fighter-bombers of this type clocked some 90 combat sorties over these two provinces alone by the end of 2012 – which was certainly a lot, considering that a much higher number of Su-22s flew only about 120.

In October 2012, the SMC managed to effect cooperation between the Idlib Military Council, various Islamist insurgent groups organised within the Syrian Islamist Front (SIF), and the JAN, and these deployed a combined force of about a dozen brigades to secure the town of Ma'rat an-Numaan. The capture of this crucial crossroad on the highway from Hama to Aleppo resulted in the interruption of the main supply line for the government garrison in Aleppo. However, the first insurgent assault on the nearby army base in Wadi ad-Dways failed and they were subsequently subjected to intensive air strikes. Namely, the situation in the Ma'arat an-Numaan area prompted the SyAAF to start launching between 180 and 200 combat sorties a day and, ultimately, this massive effort saved this army base from being overrun. However, at least as often as they provided close support for besieged or nearly overrun ground units, SyAAF fighter-bomber-pilots received strict orders to target bakeries and apartment areas in selected cities and towns in order to cause civilian casualties. Two squadrons flying MiG-21s from Hama AB are known to have clocked over 200 combat sorties against targets in this and the nearby Homs province by the end of the year. For example, on 18 October they killed at least 49 civilians (including 23 children) while targeting one bakery in Ma'arat an-Numaan. Similarly, they bombed the town of Haram after it was captured by insurgents, obliterating 30 apartment buildings and killing dozens.

By the end of October 2012, the SyAAF suffered a confirmed cumulative loss of 5 L-39s, 7 MiG-21s, 1 MiG-23BN, 2 Su-22s, and no fewer than 16 Mi-8 and Mi-17 helicopters, together with 22 pilots, other crewmembers and passengers KIA, 23 missing, and five captured.[10] Only eight crewmembers – crews of two downed Mi-8 helicopters – were recovered. While most kills were scored with heavy machine guns and ZU-23 twin-barrelled 23mm guns, around a dozen fighter jets and helicopters were shot down by the relatively small number of SA-7 and SA-16 MANPADs captured by insurgents. Nevertheless, the appearance of such weapons in the insurgent arsenal prompted the SyAAF to stop operating L-39s over Aleppo.

Despite losses, the air force further increased the pace of operations during November, flying up to 250 combat sorties a day by the middle of that month. It was during this period that the SyAAF began deploying Su-24s to hit targets in Aleppo and Idlib. At the same time, No. 819 Squadron SyAAF was repeatedly tasked to fly attacks on targets in north-eastern and eastern Syria, where the JAN spearheaded attacks that resulted in the capture of the at-Thawra and Ba'ath hydroelectric dams in Raqqa Province, the Teshreen Dam in Aleppo province, and – on 22 November – a well-coordinated assault of the Mayadeen Artillery Base on

A Su-24MK loaded with eight bombs of unknown type seen in a turn over Jabal az-Zawiya, Idlib Province, in November 2012. (SNN)

the outskirts of Dayr az-Zawr. MiG-21s from Hama were foremost busy bombing Rastan and Qusayr, but these two towns subsequently became primary targets for units operating Su-22s and Su-24s, which flew about 160 combat sorties over Homs province by the end of 2012.

Except for launching local counterattacks in Aleppo, the government ground forces largely remained idle during the autumn of 2012 – due to due to fuel shortages, but also paralysed by indecisiveness at the top, and the proverbial wait for the IRGC. It was only in Damascus that the RGD, (now reinforced by the first two IRGC-battalions deployed in Syria) was very active, though the efforts of most of the units of this division were concentrated on – literally – bulldozing entire neighbourhoods of southern Damascus. Led by Brigadier General Hussein Makhlouf, the operation in question resulted in destruction and the displacement of dozens of thousands of civilians from Qaboun, Tadamoun, Almazza and Darayya, Harasta and Yalda, and summary executions of several hundreds, between late August and late September. This operation was heavily supported by MiG-23s and Su-22s, which subsequently began targeting military bases in Eastern Ghouta overrun by insurgents and clocked at least 500 sorties over this part of Syria by the end of year. MiG-21s from Khelkhleh AB joined them in December, flying between 80 and 100 additional sorties.

Whether the SyAAF could have maintained such a pace of operations for much longer remains unknown, just as it remains unknown to what degree it depleted its available reserves of fuel (known to have been critical all around Syria at those times), spares and weapons. What is certain is that bad weather came in during December: it practically grounded much of the air force and the government therefore ordered deployment of ballistic missiles against insurgent-held cities and towns instead. Over 300 such weapons – primarily including Scud-B/Shahab-3s/Jowlan-2s, Zelzal/Misseloons and Fateh-110/Teshreens, but also a few FROG-7s – are known to have been fired against targets in northern Syria, foremost in the Aleppo area, during early 2013.

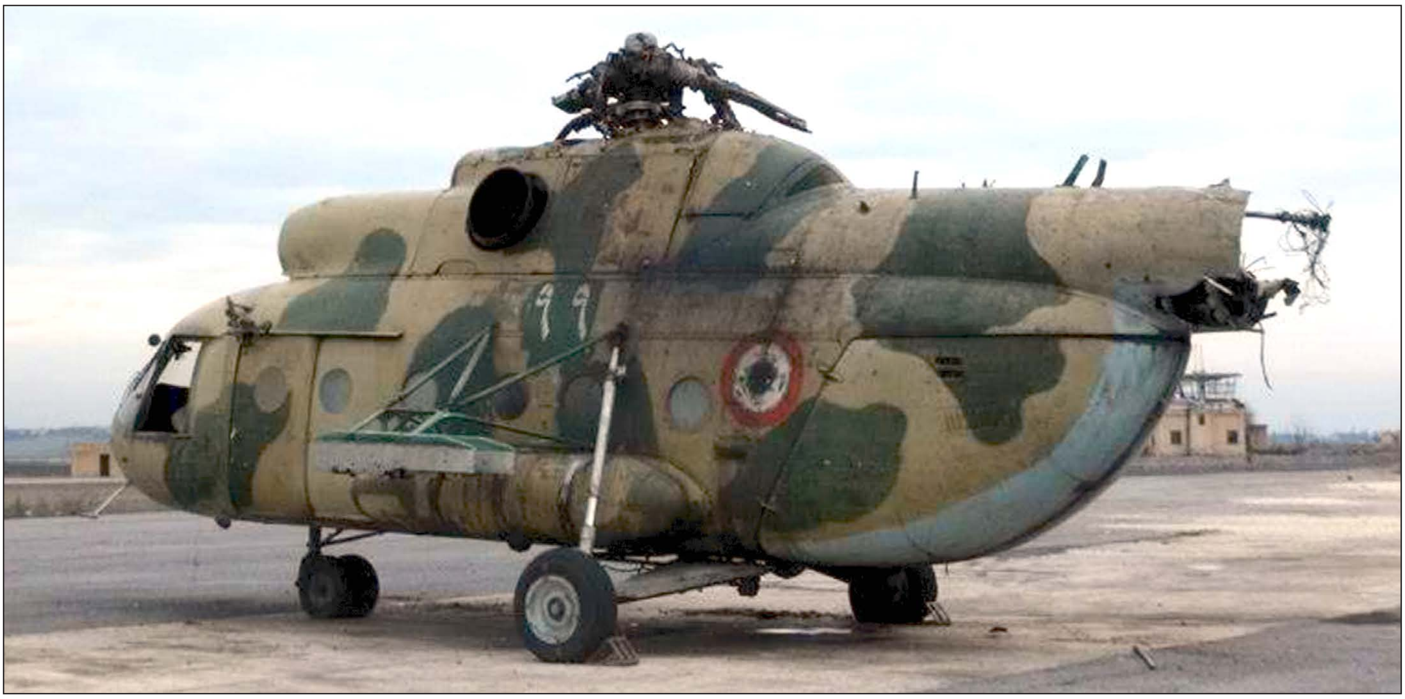
OFFENSIVE ON AIR BASES

Overall, with the exception of Aleppo and Wadi ad-Dwayf, most SyAAF efforts between August and December 2012 were in vain: the insurgents continued launching ever larger and better coordinated operations, bringing huge swaths of territories in northern, central and southern Syria under their control. For example, the government forces are known to have lost 17 different bases and major checkpoints in Aleppo and Idlib provinces between May 2012 and January 2013 alone, while the remaining few strongpoints were practically cut off from the outside world and entirely reliant on supplies dropped from Mi-8 helicopters for survival.

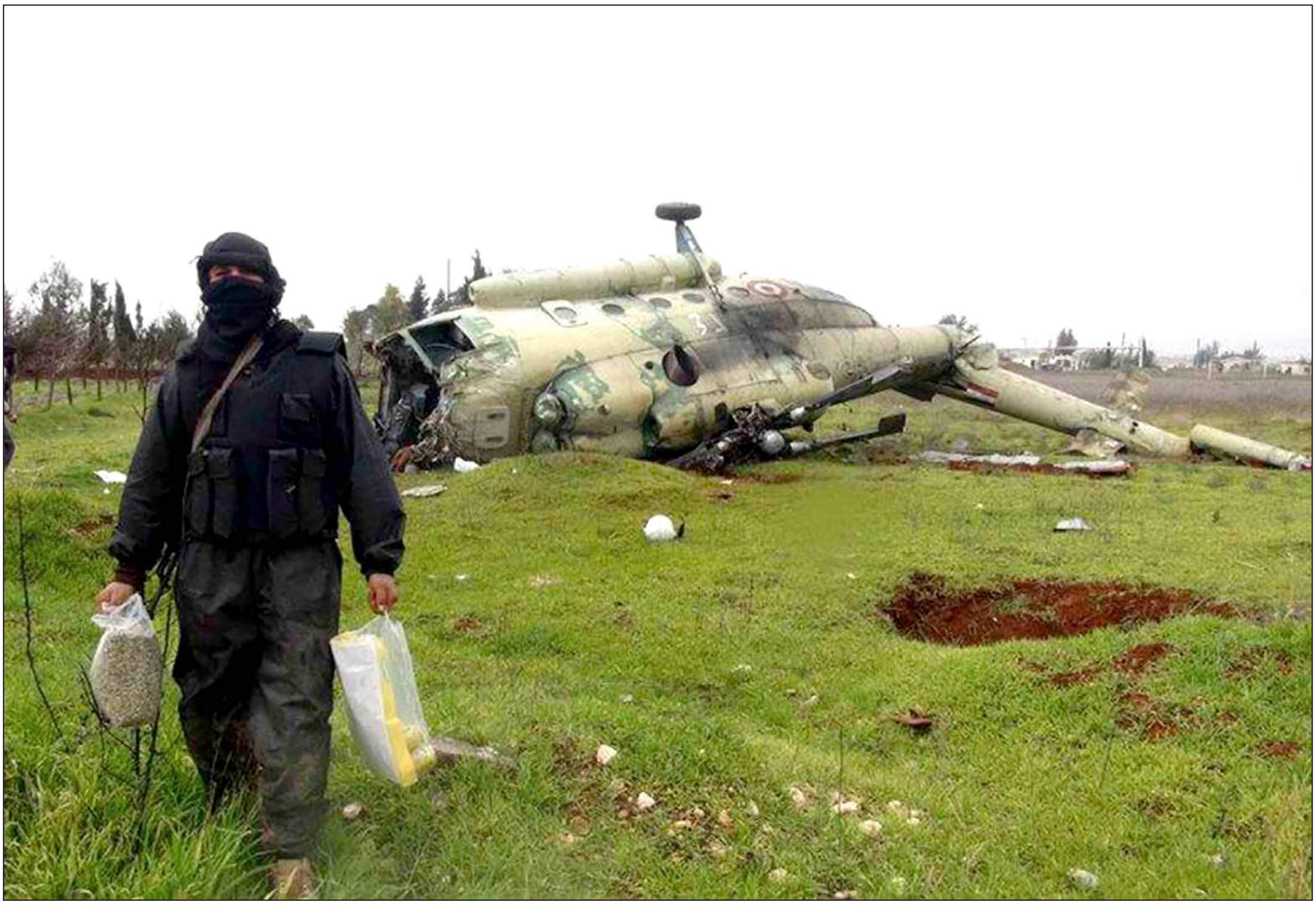
Starting from late November 2012, the insurgents launched a new offensive in Eastern Ghouta, capturing a number of local bases. On the 24th of that month, they overran the Marj as-Sultan AB, capturing five intact (although inoperational) Mi-8s and destroying one helicopter on the ground. Around the same time, a map captured from an officer of the RGD clearly showed that the government had lost the control of almost the whole of Eastern Ghouta.

During December 2012, the SMC reached agreements with the Liwa al-Tawhid (a major insurgent formation in the Aleppo area), SILF in Damascus, the Idlib Military Council (including the powerful Suqour ash-Sham Brigade), and the Farouq Brigade in Homs (which turned into a successful franchise that began arming and training insurgents in Rastan, Qusayr and even in Dera'a), to launch additional joint operations. This resulted in several insurgent attacks on the infrastructure of the government's centres of gravity and cleared specific positions, instead of trying to gain territory in urban centres. For example, on 17 December, units of the Idlib and Homs Military Councils overran the town of Halfaya in Hama Province, capturing the weakly-defended yet excellently stocked base of the 34th Armoured Brigade, together with between 12 and 15 intact T-72s and at least one ZSU-23-4. The government reacted by shelling Halfaya with artillery, and then bombing it with Su-24s that killed up to 200 civilians. Subsequently the CO of Hama-based No. 680 Squadron SyAAF, Colonel Amar, defected in protest over the atrocities.

Other of such operations further degraded the SyAAF's capability to continue operating from air bases close to the frontlines. On 11 January 2013, Taftanaz AB was finally overrun by a three-pronged attack by insurgent factions from the SIF, SILF and the JAN. This attack caught the government by surprise and resulted in the confirmed loss of nine additional Mi-8Ts, three Mi-17s and two Mi-25s, further to an already decommissioned Mi-8PS helicopter for electronic combat support. The commander of this base was killed during the assault, and insurgents captured 25 pilots, effectively destroying No. 253, No. 255 and No. 257 Squadrons SyAAF. The SyAAF reacted with vicious air strikes by Su-22s that caused some damage to this base, but foremost demolished the nearby town. Although categorised as a 'success'



Six SyAAF Mi-8Ts and Mi-17s were left behind by the SyAAF at Marj as-Sultan AB on 24 November 2012, including Mi-8Ts serialled 1299 (seen in this photo), 1340 and 1387 (all partially dismantled), and Mi-17s serialled 2940 (damaged by small arms fire), 2944 (partially dismantled) and 2965. From what is known about their fate, all may have been destroyed during subsequent air strikes on this base. (Army of Islam release)



A JAN insurgent in front of the Mi-17 shot down while trying to escape from Afis AB on 11 January 2013. When Afis AB was overrun on that date, the SyAAF lost the Mi-8Ts serialled 1320 (badly damaged), 1344, 1353, 1355, 1394, 1395, 1397, and 1399 (badly damaged); Mi-17s serialled 2134, 2139, and 2936; and Mi-25s serialled 2802 and 2808. Most of these helicopters were destroyed during subsequent air strikes on this base, which began three days later. (ENN)

A Su-22M-4 pulling up after one of about 100 air strikes flown by the SyAAF over the Idlib Province in December 2012 and January 2013. Syria obtained only about 20 aircraft of this variant, some 14 of which remained in service with Sh'eirat-based No. 685 and T-4-based No. 827 Squadrons. Gauging by its camouflage colour (consisting of dark yellow sand and blue-green), this example appears to have been overhauled by The Works at Nayrab AB. (via R.S.)

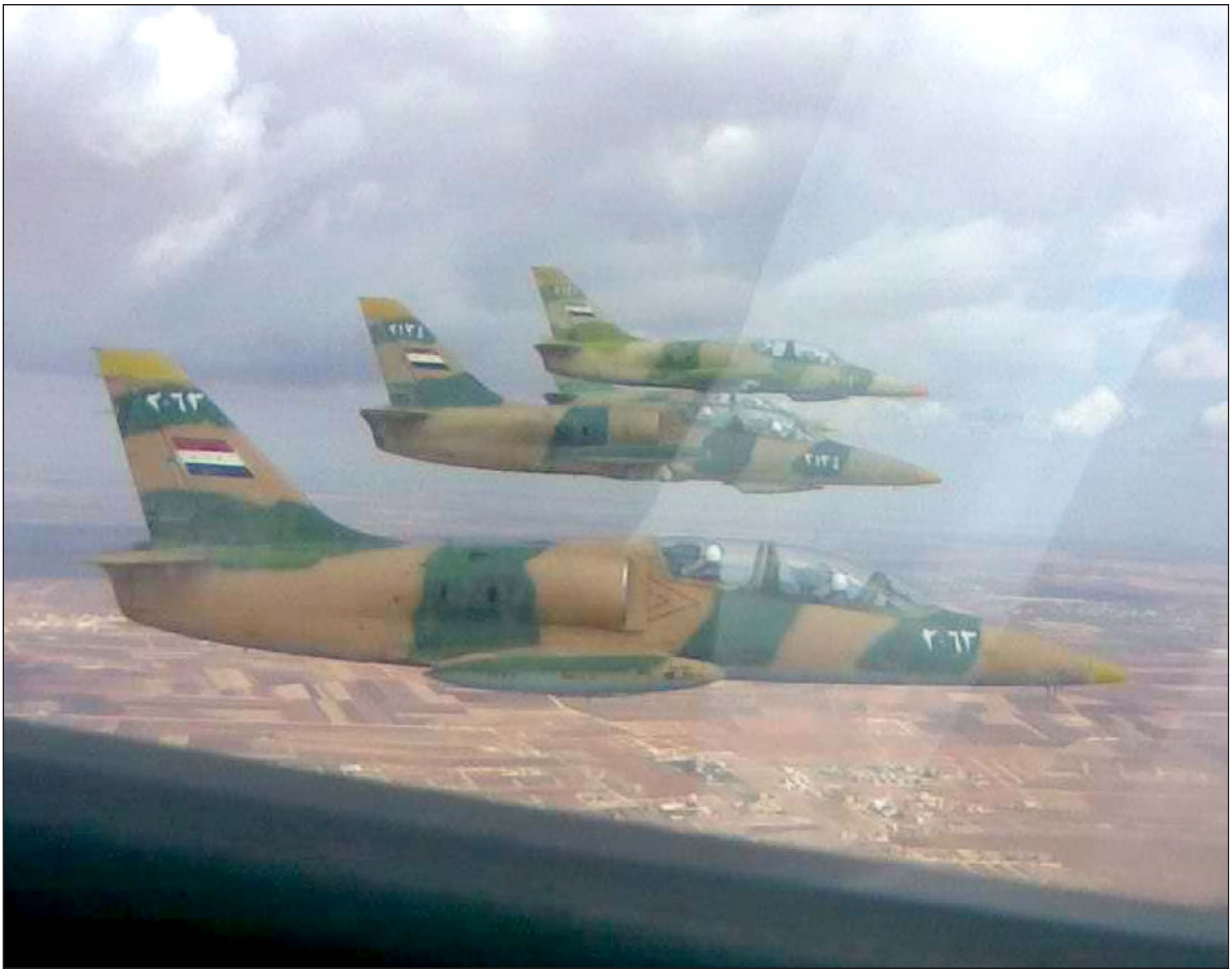
The mass burial of dozens of civilians killed by SyAAF air strikes on Taftanaz in early April 2013. (via Y.A.)

A still from a video showing retired colonel of the UAE military, al-Abdouli, inside the cockpit of one of the L-39s captured at Ksheesh AB in February 2013. Abdouli was killed in fighting shortly later, but with some help from sources in Arab states along the Persian Gulf, and with spares found at this air base, the Islamic Front subsequently overhauled two L-39s. Only constant SyAAF attacks on Ksheesh prevented these from flying combat operations. (via Tom Cooper)

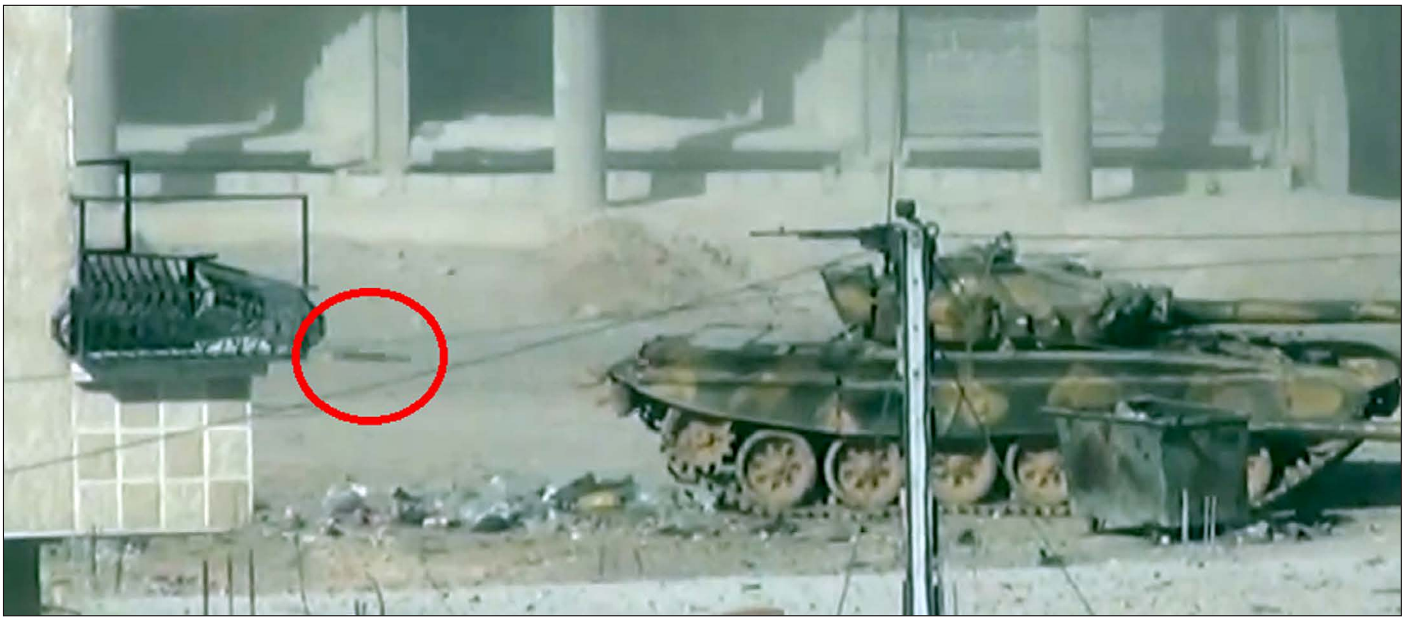
by the government, this effort backfired: the surviving population of Taftanaz was largely forced to flee, but once their families were in the safety of refugee camps in Turkey, thousands of men returned to Syria to join the insurgency.

Only a week later, the insurgents in Rif Dimashq began launching attacks on more than 20 different government positions, including Damascus IAP. It was there that a Boeing 747 of Iran Air was damaged by ground fire while landing with a load of equipment for IRGC troops already present in Syria (see following chapter for details) on 13 January 2013. After overrunning a number of government positions – including the base of the 81st Air Defence Brigade (where some 200 troops defected to join them) – the insurgents withdrew in order not to expose themselves to the SyAAF, and then reattacked, amongst others entering the Yarmuk Palestinian Refugee Camp in southern Damascus. Controlled by organisations like the Popular Front for the Liberation of Palestine (PFLP), which sided with the government, and Hamas, which broke with Damascus (and Tehran) and withdrew its HQ to Qatar in 2012, the population of Yarmouk struggled to remain neutral. Those supporting the opposition eventually prevailed, but when the insurgents entered, much of the population fled. The latter decision proved correct, when subsequently the government heavily bombarded the place and put it under siege, although it did not try to assault it before February 2014.[11]

Through February 2013, the insurgents continued maintaining pressure upon the – now practically demolished, but still skilfully defended – Minakh, Nayrab and Kweres air bases, while concentrating on the capture of Ksheesh AB, and 'Base 80' south of Aleppo. A SyAAF Mi-8 helicopter was shot down over Kweres on 16 January 2013 while attempting to drop supplies, and a L-39 was shot down by MANPADs over Aleppo, two weeks later, killing its pilot. Following sustained insurgent attacks, Ksheesh AB was overrun on 1 February 2013, by when the SyAAF had withdrawn most of its operational aircraft and all helicopters from there. Nevertheless, eight L-39ZOs were captured in – more or less – intact condition (together with nearly 50 derelict MiG-15UTIs and MiG-17Fs, all abandoned and used as decoys since the 1970s), one of which was destroyed during subsequent air attacks by Su-24s. Overall, February 2013 proved the worst month for the SyAAF so far. The air force suffered a confirmed



Amongst many photographs found by insurgents when they captured Ksheesh AB, was this one showing a formation of L-39s during a training flight in better times. Their camouflage pattern indicates that all were overhauled by The Works at Nayrab AB. Visible serial numbers are 2063 and 2121: the latter aircraft was shot down over Sheikh Najar in Aleppo province on 15 October 2012. The crew of two ejected safely and was captured. (SyAAF)



A still from a video showing a scene that occurred in the Darayya district of Damascus on 24 January 2013. A RPG-29 round fired by insurgents (red circle) can be seen approaching a T-72 of the RGD: it hit the joint of turret with the hull and penetrated the armour, causing a catastrophic internal explosion of ammunition. Only the commander – lucky enough to be thrown out of his hatch by the explosion – survived. Government forces lost at least 110 T-72s between June 2012 and June 2013. (Army of Islam release)

During the night of 17 to 18 April 2013, Dhab'a AB outside Qusayr was overrun by insurgents. Out of service since 2009, Dhab'a's hardened aircraft shelters housed only long-since abandoned aircraft, including MiG-21MFs with serial numbers 1523 and 1554, MiG-21bis with serial number 2320 (seen in this photograph), two MiG-21UMs (including one with serial 2367), and one PZL Dromedar agricultural aircraft. (FSyA release)

Table 4: SyAAF losses for period June 2011 – July 2013

Aircraft Type	Confirmed Loss (shot down)	Confirmed Loss (other reasons)	Remarks
Mi-8/17	46 (1 shot down by THK F-16)	26 (abandoned)	practically all abandoned helicopters destroyed in subsequent bombardments by SyAAF
Mi-25	2	2 (abandoned)	2 abandoned helicopters destroyed in subsequent bombardment by SyAAF
L-39	6	14	most of captured aircraft destroyed in subsequent bombardment by SyAAF
MiG-21bis/UM	9	1 (defection to Jordan)	4 abandoned aircraft captured by insurgents
MiG-23BN	5		about 20 abandoned MiG-23MS/UBs captured or destroyed by insurgents
Su-22M-3K/M-4	4		
Su-24MK	1		
Unknown fighter jet	5		confirmation for the loss available in form of video but aircraft type unrecognisable
Transport aircraft	1		Yak-40 written off after hit by ground fire during landing at Dayr az-Zawr
Totals	30 fighter jets shot down 45 helicopters shot down 1 transport aircraft shot down	15 fighter jets abandoned or defected 28 helicopters abandoned	
Known personnel losses	376 pilots and crewmembers KIA; 36 pilots POW; 43 pilots and crew members MIA		

loss of six Mi-8s (including two that attempted to resupply the besieged garrison at Minnakh AB), three MiG-21s and two Su-22s, while on 7 March 2013 No. 819 Squadron also lost a Su-24 shot down over Jabal az-Zawiya (the crew of two were captured). Furthermore, the same month was remarkable because insurgents overran ar-Raqqa City, which thus became the first provincial capital to fall into their hands. A similar assault on Tabqah, some 60km west of Raqqa, was repulsed by government troops with support of the SyAAF, although the air force lost a MiG-21 and a Su-22 during the fighting there through the first half of April (for cumulative SyAAF losses during June 2011 – July 2013, see Table 4). However, the capture of the 38th Air Defence Brigade's base outside Dera'a, on 23 March, where insurgents secured sizeable stocks of SA-7 MANPADS; the appearance of Chinese-made

FN-6 MANPADS in the Dayr az-Zawr area; and the capture of several SA-18 (or SA-24) MANPADS in Idlib Province during the spring of 2013 made the future of Bashar al-Assads's government appear rather gloomy.

The last insurgent success during this period of the war occurred on 18 April 2013, when they overran the former Dhab'a AB outside al-Qusayr. Dhab'a was closed in 2009, but in recent years had seen plenty of activity related to the Iranian transport of arms and supplies to Hezbollah in Lebanon. Correspondingly, this was quite a blow for Damascus, Tehran, and for their proxies in Beirut, and a powerful reaction had to be expected.

6

CONFLAGRATION

To many foreign observers it appeared that a collapse of the Syrian government was imminent, or at least a matter of a few months, during the spring of 2013. Unknown to many, the war was to develop in an entirely unexpected fashion. Despite creation of the SMC, a gradual dissolution of the Syrian insurgency continued through the spring 2013, even more so once the extremist Islamist organisation The Islamic State of Iraq and the Levant (ISIL/ISIS) entered the country and began establishing itself in vast expanses of north-eastern Syria. The insistence of various foreign powers on providing aid directly to insurgent groups of their preference, and Western conditioning of providing aid in exchange for political declarations and subjection to control by the SNC and the SMC, resulted in quarrels and a rift within the FSyA, and then infighting between various brigades and battalions. Amid increasing chaos and continuous attacks by the government, many Syrians began requesting military aid from the West. However, because of poor intelligence about the situation in Syria, and public pressure at home, Western powers only provided minimal amounts of aid, and did a lot to suppress the support officially provided by governments of Saudi Arabia and other Arab states. This made the aid provided via private channels in Qatar, Kuwait and elsewhere ever more important, in turn opening the doors for the most negative influences upon the Syrian public in general.

It was against this backdrop that the civil war in Syria was internationalised. Even this process developed in an unexpected fashion, when countries like Turkey and the USA strictly limited or refrained – respectively – from deploying military power against Assad's government, despite having more than enough reasons to 'do something'. Simultaneously, the Iranian intervention on the side of the government was nearly overlooked – by the public inside and outside Syria, and even by foreign intelligence services.

TALKING SHOP

On 22 June 2012, a Turkish Air Force (Türk Havva Kuvvetleri, THK) RF-4ETM – serial 77-0314 – that flew narrowly outside Syrian airspace at a speed of 1,200km/h (745mph) and 2,255 metres (7,400ft) altitude was shot down by a SyAAF SA-3 SAM-site positioned north of the port of Lattakia. The missile detonated near the left engine nozzle, throwing the jet out of control. It crashed into the Mediterranean Sea about 13.84 kilometres (8.6 miles) from the Syrian coast, instantly killing the crew – Captain Gökhan Ertan and Lieutenant Hassan Hüseyin Aksoy.[1] While strongly protesting against this action, the Turkish government restrained from retaliation through military means, but continued providing aid to various Syrian insurgent groups, foremost the FSyA. Indeed, it took a series of Syrian government artillery attacks on Turkish border villages and about a dozen casualties amongst Turkish civilians for the government in Ankara to order the 3rd Artillery Regiment of its army to return fire on 22 October 2012.[2]

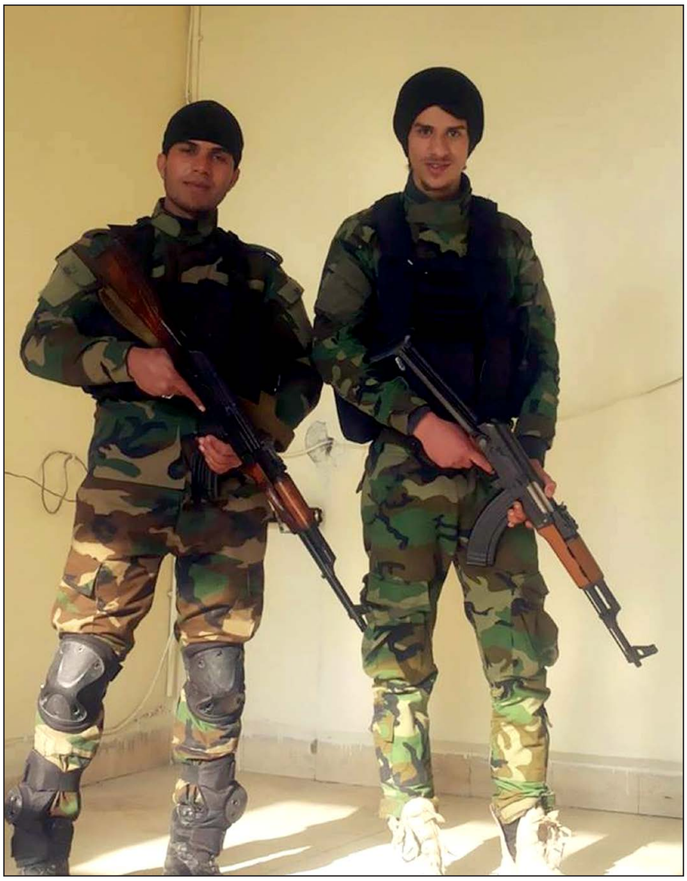
Unlike the IRGC's decision to support the government of Bashar al-Assad by all available means, Turkey restrained from retaliation and limited its activity to providing safe heaven to selected insurgent groups. Similarly, although the Syrian government continued crossing the 'red line' announced by US president Barak Obama – through continuous deployment of chemical weapons against insurgent-controlled areas – Washington limited its reaction to reaching an agreement with Moscow, under which Damascus officially declared and then promised to destroy its stockpiles of such armament. Repeated delays and postponements in the schedule prompted no reaction from the USA or the West in general. While some European powers – foremost France – understood the seriousness of the situation and realities in Syria, and exercised much pressure for an intervention, their efforts were fruitless. With the US public – war-weary after nearly 10 years of fruitless wars in Iraq and Afghanistan – happily ignoring the rich tradition of Syrian government involvement in international terrorism, and the Iranian military intervention, and convincing itself that the civil war in Syria was a conflict between a 'secular government and al-Qaida', the Obama administration swiftly concluded that the situation in Syria was of no pressing interest to the USA. Practically all European NATO members followed in fashion, and thus the Western involvement in this conflict remained limited to deliveries of relief aid for Syrian refugees in Jordan and Turkey, and on-off deliveries of support equipment to the FSyA, most of which had next to no effect on developments on the battlefield. On the contrary, the West – and especially the Obama administration – repeatedly exercised strong pressure upon the Saudi government to limit its support for the insurgency. Understanding what was at stake in Syria, considering not only al-Qaida, but also Iran as its arch enemies, already in a clinch with Qatar over its support for the Syrian Moslem Brotherhood, the Saudi government attempted to act on its own. However, attempts at supporting selected groups at their discretion were practically overruled by the US government. In summary, all of these developments not only frustrated many Syrian insurgents, but foremost furthered the already significant fights between different insurgent groups, exposing them to influence from Islamist extremists to a degree unknown in Syria of earlier times.

AL-QUDS TO THE RESCUE

Although the Shi'a Islamist Iran and the 'secular' government of Syria were not 'natural' allies, the IRI government had maintained close ties to Damascus since the early 1980s, and developed a core interest in continuing to maintain a strong position in the country. This was partially related to its need for Syria as an Arab ally against the Sunni Arab states – foremost Saudi Arabia – but especially to the need for Syrian support for the IRGC's proxy in Lebanon, Hezbollah. Following the motto 'we're not like the Americans, we don't abandon our friends', the government in Tehran was very swift to start providing aid to the government in Damascus.

As usual in such cases, the methods by which the IRGC became involved rather resembled a combined – intelligence and commercial – enterprise, than a classic, conventional military intervention. Initially, the IRGC made use of several dozen experienced officers assigned to its Failaq al-Quds (Jerusalem

Major General Qassem Suleimani, commander of the Qods Force IRGC. This pragmatic, non-religious but staunchly nationalist Iranian earned himself a reputation as a courageous warrior during the war with Iraq in the 1980s, and that of a notorious 'grey eminence' while running the Shi'a insurgency against the US-led occupation of Iraq, in the 2000s. (via Mark Lepko)



Two combatants of the Liwa Abu Fadl al-Abbas, one of the first Iraqi Shi'a militias recruited by the IRGC and deployed in Syria. Although receiving only two weeks of training in Iran on average, many members of such units had served with the Iraqi Army and Police trained by US forces in the 2000s, and were in possession of significant combat experience. (LAFA release)

Corps; IRGC-QF) that were present in Syria with the primary task of overseeing the transfer of arms and supplies to Hezbollah in Lebanon. Reinforced by several hundreds of IRGC volunteers, these were deployed to advise – and sometimes openly support – government forces in nearly all of the early operations against mass protests. Otherwise, the IRGC limited its activity to provision of 'courier services' for the money Tehran began providing to save the Assads from bankruptcy, and advice on combat operations. Despite the presence of such senior IRGC officers as Brigadier General Hassan Shateri (former CO Failaq al-Quds in Lebanon), their overall influence on the battlefields of the Syrian Civil War remained limited for the first two years of the war.

The situation experienced the first major change after the fall of Dha'ba. During the following weeks, the commander of the IRGC-QF, Major General Qassem Suleimani, returned to Syria. In command of this force since 1998, Suleimani was practically the 'executioner' of orders that he received from Vahid Hagganian, who in turn was the link between the 'Supreme Leader of the Islamic Revolution' (the de-facto dictator of Iran), Ali Khamenei, and top IRGC commanders.[3] More recently, he was the key person in organising the IRGC-controlled Shi'a resistance against the US-led occupation of Iraq, the Kata'ib Hezbollah (the armed wing of the Shi'a party named the Supreme Council for the Islamic Revolution in Iraq), and instrumental in establishing the government of the Islamic Dawa Party and Prime Minister Nouri Kamil Mohammed Hassan al-Maliki in power in Baghdad.

Within just a few days of inspecting the situation, Suleimani concluded the Syrian military as 'useless'. This resulted in two ideas: organising a Syrian equivalent of the 'Basiji' Corps (a popular militia run by the IRGC since the time of the war with Iraq), and a complete reorganisation and retraining of the remaining Syrian military and intelligence assets. For this purpose, Suleimani brought in Brigadier General Hossein Hamedani (former CO Basiji Corps), who subsequently became instrumental in the establishment of the NDF, and Brigadier General Jamali (former CO Kerman Security Council with extensive experience in fighting against Afghan and Pakistani drug dealers and asymmetric warfare), who received the responsibility of reorganising the government's intelligence services. It was under these circumstances that the IRGC officers became deeply involved in training various of pro-government militias, and then in setting up an elaborate system to monitor insurgent communications.

However, because the Iranians needed time to retrain the Syrian military while the Syrian government's position remained precarious, Suleimani had to buy time. Therefore, he requested the deployment of IRGC units from Iran, and the Shi'a militias in Iraq to establish units that could be deployed inside Syria almost immediately. Simultaneously, he also prompted Hassan Nasrallah, Hezbollah's leader, to deploy his fighters to Syria and – understanding that his organisation would find it hard to survive without Dhab'a – Nasrallah reacted as requested. Combined together, all of these deployments, reorganisations and measures were to turn the flow of the war.

BATTLE OF AL-QUSAYR

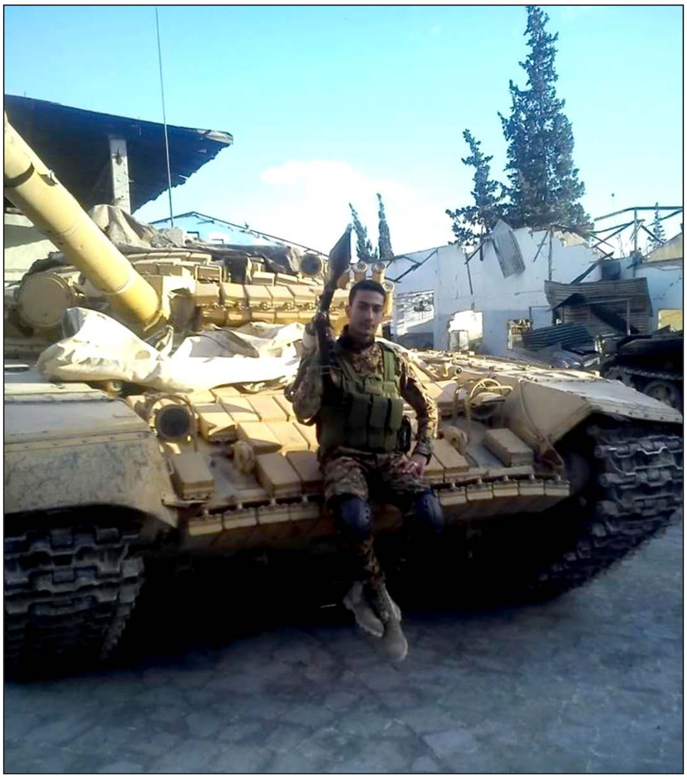
The primary aim of Hezbollah units that began deploying to Syria during March 2013 became the town of al-Qusayr, a major insurgent stronghold in south-western Homs province, overlooking a significant stretch of the border with Lebanon. With two small Hezbollah brigades on hand – supported by three task forces from the 4th AD on hand (the latter included detachments from the former 3rd, 7th and 10th Divisions) – Suleimani planned the offensive to be completed within five days: government units were to surround and block the area after which Hezbollah would move in and mop up. To the surprise of the Iranians and Hezbollah however, not all the involved Syrian units welcomed them. Not only were some local commanders selling intelligence, equipment and ammunition to the insurgents, but a few openly cooperated with them. On the first day of the offensive, 4 April 2013 – and whether by mistake or design – SyAAF fighter-bombers hit Hezbollah positions instead of those held by insurgents.

Nominally operating under the auspices of the FSyA, the 17 different insurgent groups holding the area put up stiff resistance and launched several counterattacks. Because government troops repeatedly refused to follow Hezbollah into battle and withdrew, the Lebanese Shi'a were several times outflanked and suffered unexpectedly heavy casualties. Their first assault attempt on al-Qusayr was beaten back on 19 May.[4] However, cut off from outside support, the insurgents could not hold out forever. Concerned about the fate of over 25,000 civilians and more than 1,000 injured fighters, their leaders decided to try to evacuate by reaching either the border with Lebanon or insurgent-held areas north and east of al-Qusayr. The corresponding operation was launched during the evening of 4 June, and resulted in a partial disaster, with hundreds of insurgents and civilians killed while breaking out of the siege and marching in open terrain under heavy artillery fire. Hezbollah secured al-Qusayr in the course of a nocturnal attack that met only little resistance a day later.

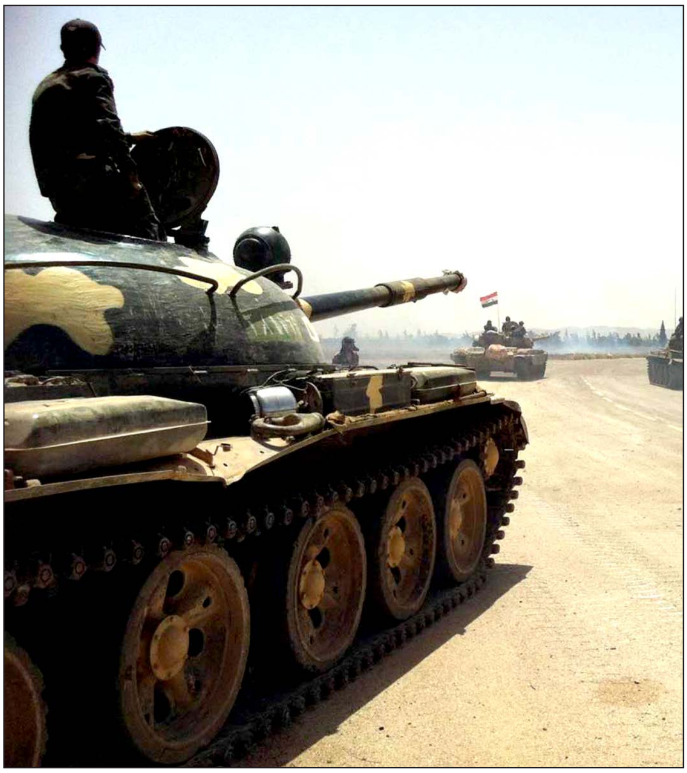
Meanwhile, al-Quds officers began sorting out the situation in Damascus, where insurgents had not only cut off the highway to the IAP, but also districts of Kfar Sousa, Barzeh, Jobar and Zamalka during February 2013. In cooperation with the RGD, the Iraqi Shi'a militias deployed with the help of Boeing 747s of the Islamic Republic of Iran Air Force (IRIAF), IranAir and Ilyushin Il-76 transports of the IRGC Air & Space Force (IRGCASF) from

Combatants of an Iraqi Shi'a militia taking away a Syrian insurgent captured during fighting in the southern suburbs of Damascus in November 2012. (via M.P.)

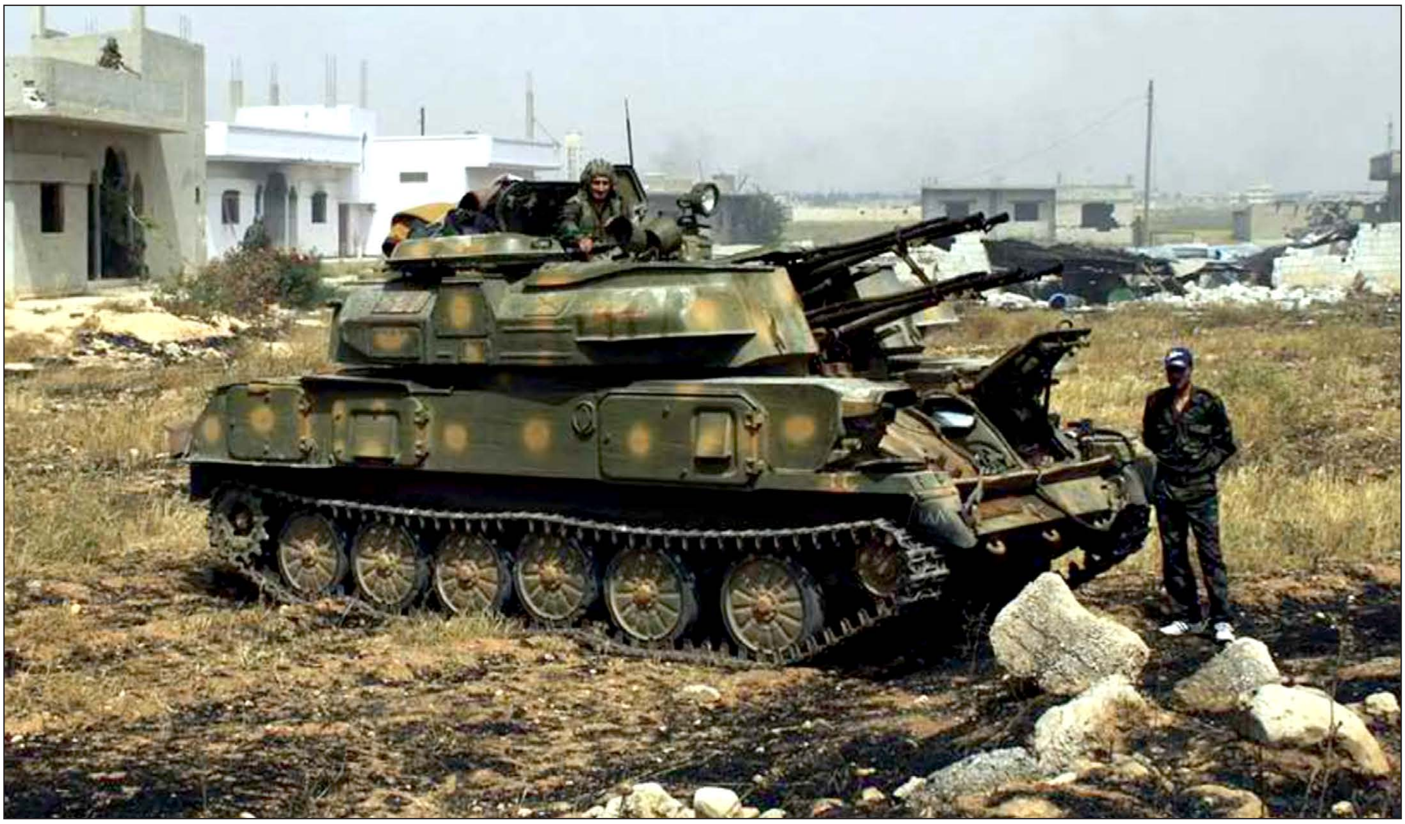
'Defence of the Shrine of Sayida Zainab' – a religious site in the southern district of Damascus that saw much Iranian pilgrimage in the 2000s – against attacks by al-Qaida was the official reason for the deployment of Iraqi Shi'a militias in Syria. This rare photograph of that shrine was posted on the internet by a member of LAFA. (LAFA release)



A combatant of Liwa Abu Fadl al-Abbas seen with a RGD T-72AV. Since spring of 2013, several militias recruited by the IRGC in Iraq, Pakistan and elsewhere were deployed as 'mechanised infantry' of the Republican Guards Division. (LAFA release)



A formation of loyalist T-62s and T-72s seen while advancing to provide support for Hezbollah units in the Qusayr area in early June 2013. Since this battle, less and less of the former Syrian Arab Army was seen on the battlefields of Syria. (via M.P.)



A ZSU-23-4 Shilka SPAAG in the Qusayr area in May 2013. With no threat of air attacks, they were usually deployed in ground combat mode, in which their high rate of fire proved highly effective in fighting against insurgent ATGM teams. (via M.P.)

Mashhad in Iran to the IAP, first took care to secure the highway and Sayida Zainab before launching attacks on Moadamiyeh, Yarmouk and al-Husseniya in the south. This offensive caught the disunited insurgents by surprise, and was followed by a major advance of the IRGC, Iraqis, the RGD and the 4th AD on Harran al-Awamid, Qaysa and Jarba, east and north of Damascus IAP. By the end of March 2013, they had not only reopened the highway connecting the Syrian capital with the airport, but also placed three large insurgent-held pockets in Rif Dimashq under siege. With this, however, the combined forces under Suleimani's

Combatants of a pro-government militia seen together with a BMP-1 IFV during the battle of Qusayr in May 2013. (via M.P.)

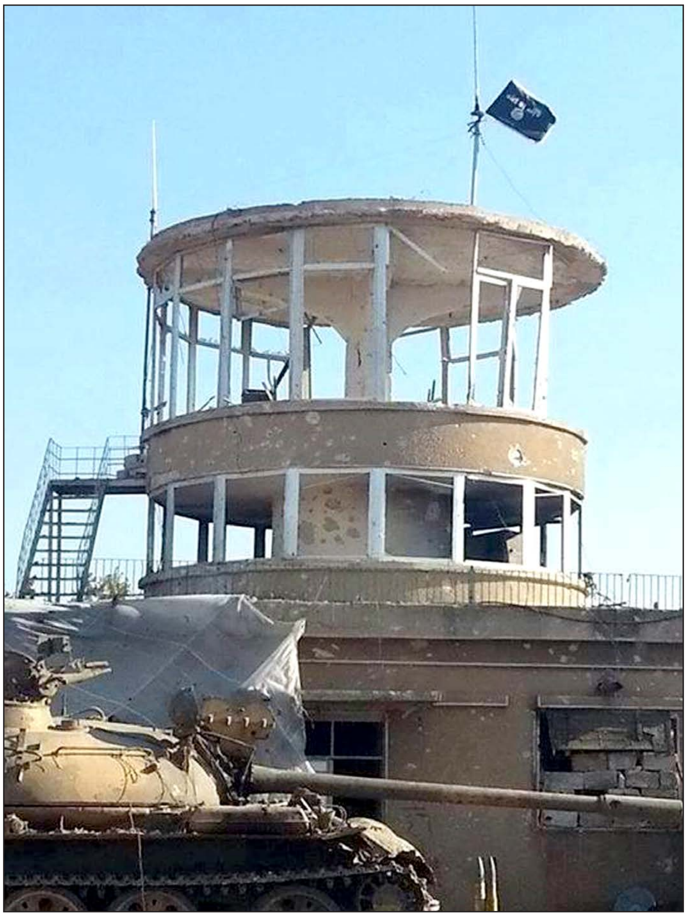
Quds Force officers working with the Syrian military were surprised to find out that many of their Syrian counterparts were cooperating with the insurgents. Indeed, in August 2013, the Liwa al-Islam released a video from which this still was taken, showing a column of up-armoured T-72AVs and BMP-1s it claimed to have bought from an officer of the 4th Armoured Division. (LI release)

command ran out of steam again. Not only were their operations greatly hampered by the lack of troop strength and fuel, but some of the Iraqi Shi'a units began fighting each other for the control of Sayida Zainab, while others refused to take orders from the IRGC and the Syrians. Finally, IRGC-QF officers in command of this hodgepodge of assets were not keen to risk high losses while assaulting the insurgent-held southern suburbs of Damascus: with a number of ex-SyAA units undergoing training with the help of Iranian and Hezbollah advisers and being in the process of reorganised as the NDF, the conservation of remaining assets remained a priority for the time being.

THE SECOND MOST IMPORTANT MAN IN SYRIA

Under such circumstances it was early July 2013 before Suleimani agreed to launch an operation to improve government positions in Homs, nearly two thirds of which were now held by insurgents. During March 2013, an insurgent breakout attempt combined with attacks on government positions from the directions of Rastan and Talbiseh, had managed to loosen the months-long siege of the city and bring some supplies to Bab Amr and Khalidya districts. Only a vicious campaign of SyAAF attacks prevented a collapse of government positions in several parts of the city. Following a week of heavy artillery- and aerial bombardment, IRGC-QF-led and supported government troops assaulted the Old City and Khaldiyeh Districts in early July. Advancing slowly and methodically, they captured most of both districts before this operation had to be stopped.

On 4 August 2013, 10 insurgent brigades launched an offensive into north-eastern Lattakia Province. Despite rugged terrain, they swiftly captured 12 villages, put Qardaha – the hometown of the Assad family – under artillery fire and threatened to advance on Lattakia. After some hesitation – apparently caused by a dispute between Suleimani and his staff, and the government in Damascus



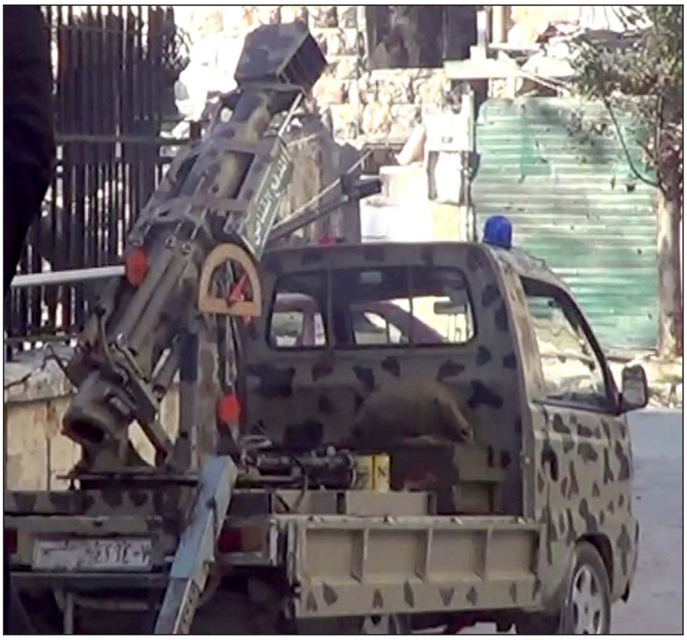
The old control tower of Minakh AB (constructed during the French Mandate) seen on the morning of 6 August 2013, when this base was overrun by insurgents. Because the final assault was preceded by an attack by a suicide bomber from ISIS, extremist Islamists rushed to claim this as a victory for themselves: the base was to remain under their control until early 2014. The SyAAF is known to have lost at least five Mi-8s at Minakh. (ISIS release)

Members of an unidentified Iraqi Shi'a militia on the streets of Aleppo. At least two units of these combatants were rushed to reinforce the government garrison in Aleppo during the summer of 2013. (LAFA release)

over whether to continue the offensive into Homs or react to the insurgent offensive – the Death Brigade NDF (elements of the former 1st Division, primarily consisting of the former 76th Brigade) was rushed along the coastal highway towards the north. The unit was reinforced by at least two NDF battalions while underway and received support from the SyAAF before launching its counterattack. This succeeded in forcing the insurgents back and recovering most of the lost villages, though not without heavy losses for the government.

On 6 August, the garrison of Minakh AB collapsed after 10 months of siege, with some of the survivors escaping to nearly Kurdish and Shi'a enclaves, while the rest was overrun in the final insurgent assault. Fifteen days later, various insurgent groups in cooperation with the JAN overran the garrison of Khanasir in southern Aleppo province, decimating a battalion of IRGC troops in the process. In this fashion, the insurgents cut off the

This T-55AMV operated by the NDF was knocked out during the last insurgent advance in Aleppo in August 2013. (via Y.A.)



A 'home-made' mortar operated by insurgents in Aleppo. Different variants of such weapons, most of them using butane bottles as ammunition, were constructed by insurgents in a number of Syrian cities. Some were capable of collapsing a multi-story building with a single shot. (FSyA release)

government's last supply route into Aleppo City. The situation was soon to experience further escalation, because the insurgents then began to invest the town of as-Safira, about 100km south of Aleppo and the site of one of the biggest production and storage facilities for chemical weapons in Syria. Nearly simultaneously, insurgents inside Aleppo – reinforced by several shipments of ATGMs and ammunition from Saudi Arabia, and with improved cooperation between different units – stopped a local government offensive and then launched a powerful counterattack that resulted in them recapturing Sallhaddin and Hamadaniya Districts before continuing into New Aleppo. Under pressure, the government replaced the commander of the garrison – Lieutenant General Mohammed Khadour – with Lieutenant General Essam Zahreddine (former CO 104th Brigade RGD) and requested that the Iranians lift the siege of the city, because the supply situation was already dire and with the coming winter could not have been expected to improve.

The loss of Khanasir was something like a turning point in the Iranian involvement in this war. Until that time the IRGC-QF operatives were primarily providing advice and material support. They were instrumental in the reorganisation of what was left of the Syrian military, the creation of dozens of local militias, and the deployment of Hezbollah and Iraqi Shi'a militias inside Syria. They commanded the latter two forces during battles for Qusayr and in Homs, but rarely became directly involved in combat operations. Subsequently, Suleimani and his aides were to leave no doubt about who was in command of all the forces – at least nominally – fighting 'for Bashar', and this through nobody less than Bashar al-Assad: he was convinced to issue a written order to all of his military commanders – from the Syrian Minister of Defence down to every company commander – that Suleimani was 'the second most important man in Syria', and to strictly listen and follow every one of his orders, without any disputes or discussions.

In the course of corresponding negotiations with Tehran, Suleimani requested – and was granted – additional IRGC troops and material necessary to reopen the supply route to Aleppo during late August. This resulted in a sharp increase in Iranian supply flights into Damascus IAP during the late summer 2013, with several transport aircraft landing there every day. In addition to carrying large amounts of arms, ammunition, and fuel the aircraft brought in a sizeable IRGC battlefield command staff and the personnel of an entire brigade of the 8th 'Najaf' Armoured Division IRGC. Due to Tehran's continued insistence on 'minimal footprint' of their presence, the Pasdaran brought very little of their own equipment with them: instead, they were equipped with T-72s, BMP-2s, tube artillery, MRLs and other armament of the RGD (which was now running short on troops because of defections and heavy losses from earlier fighting).

Lieutenant General Essam Zahreddine, former CO of the 104th Brigade RGD, was put in command of the Aleppo garrison during the crisis that developed in late summer 2013. He earned himself a fearful reputation amongst the insurgents and survived numerous assassination attempts. (Zahreddine collection)

The next to arrive was a battalion-sized special forces contingent known as Seraya Tli-e-Khorasani, followed by additional contingents of Iraqi Shi'a, and then a sizeable team of IRGCASF officers, pilots and ground personnel. Despite their numbers, the IRGC forces in Syria were extremely hard to track down: the units in question were neither massive nor spread over the battlefield like Roman legions or operating independently from other government forces. Instead, they were tightly integrated with Hezbollah and Iraqi Shi'a militias, and the RGD, or deployed in small detachments that commanded NDF and BPM units, and other pro-government militias, like that of the Syrian Socialist National Party (SSNP).

Lieutenant General Mohammed Khadour (foreground, right), CO of government troops in Aleppo until July 2013, addressing his combatants before he was replaced by Lieutenant General Essam Zahreddine. (SANA)

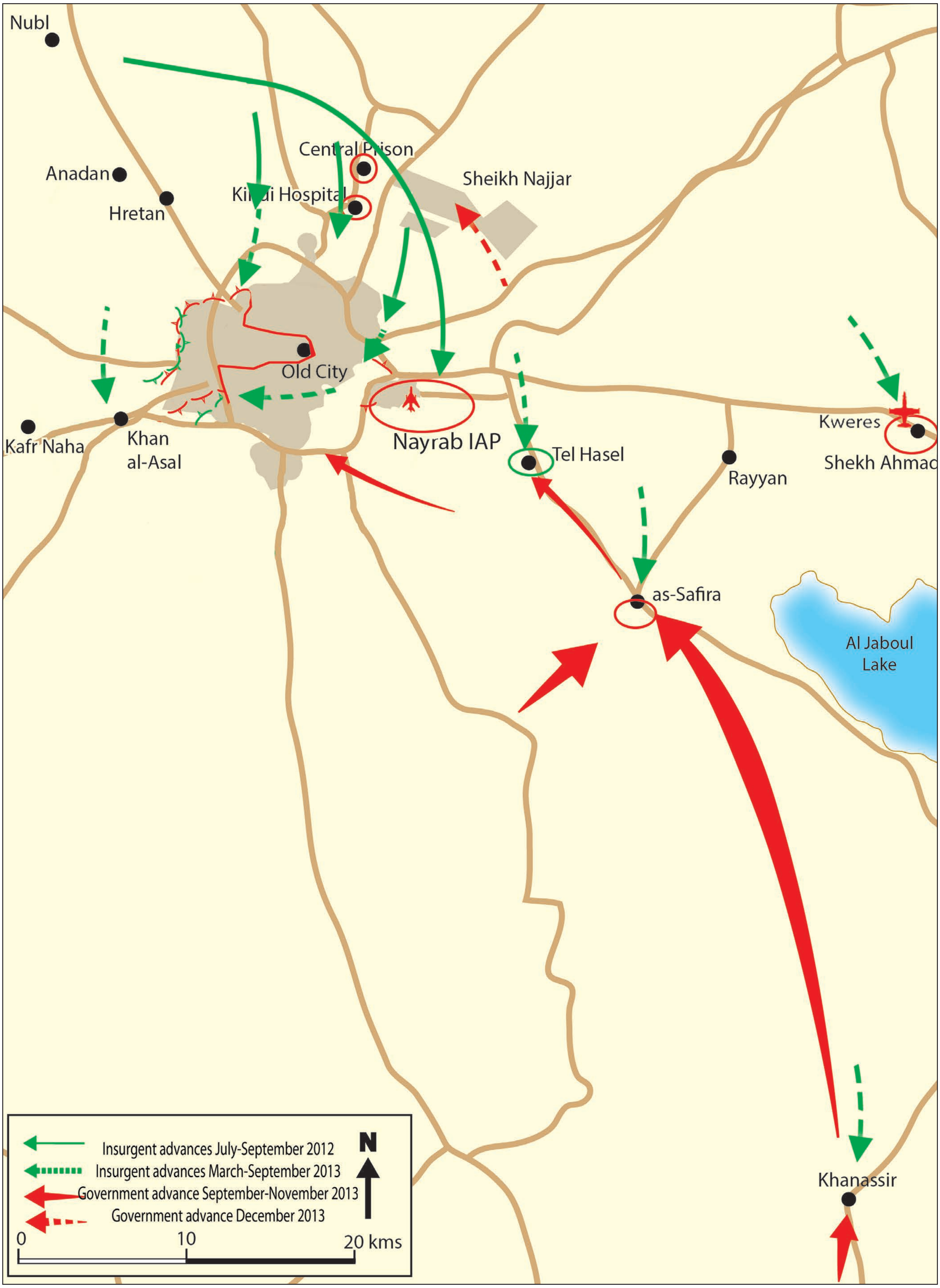
Following several weeks of intensive training, Suleimani's new force was deployed for a test-attack on the Yalda District of southern Damascus, next to Sayida Zainab. In late September, a surprise nocturnal assault – something unheard of in the Syrian Civil War until that time – practically overran the local insurgents. Despite minimal support of artillery, armour and air power, the Iranians and Iraqis secured the entire district within only 48 hours.

NORTHERN STORM

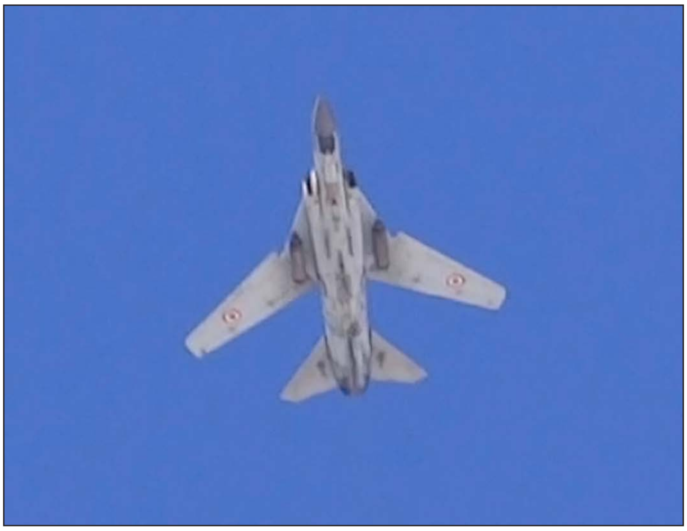
By early October 2013, Suleimani redeployed part of his troops from Damascus via Tadmor into eastern Hama Province, where it joined task forces of the 4th Armoured Division. In this fashion he created a combination that was subsequently to become characteristic for this conflict: small, crack IRGC (or Hezbollah) units, supported by heavy weaponry of the RGD, the 4th AD and the SyAAF, followed by NDF units deployed to secure recaptured positions.[5] Although rumours about the pending 'government offensive' in the direction of Aleppo – 'Operation Northern Storm' – were prematurely released to the public, the insurgents ignored them and remained busy investing as-Safira. Correspondingly, the assault on Khanasir took them by surprise and was over almost as soon as it began: during the evening of 2 October, IRGC special troops were deployed by helicopters behind insurgent positions. The chaos their appearance caused was exploited by Iraqi Shi'a infantry to infiltrate and then assault the town. Khanasir was safely in 'government' hands by the morning of 4 October and an IRGC supply unit – deployed instead of the Syrian military logistical system, which often spoiled the results of earlier successes – rushed 20 convoys of trucks loaded with fuel, ammo, food and reinforcements to the beleaguered garrison in Aleppo.

The assault on insurgent positions in the north-eastern part of as-Safira began on 15 October and saw some of the most bitter fighting in this war by that date, as the insurgents – often supported by captured armour and artillery pieces – offered bitter resistance. It took a massive dose of artillery and air strikes to force them to withdraw on 31 October. The SyAAF MiG-23MFs and MiG-29s were particularly active during this operation, firing many 240mm S-24 unguided rockets, their laser-homing S-25 variants, and even a few Kh-23 and Kh-29 guided missiles (ASCC/NATO-codenames 'AS-7 Kerry' and 'AS-14 Kedge', respectively). The reason for the deployment of these interceptor types for ground-attack purposes might appear doubtful, but it should be born in mind that after more than a year of intensive operations much of the genuine SyAAF fighter-bomber fleet was worn out and in need of overhauls. Even more so, officers of the IRGC-QF were seeking to improve the combat effectiveness of the air force, resulting in the deployment of more modern – and lethal – weapons, deployed from aircraft equipped with better fire-control systems.

By 3 November, the Iranians and Iraqis advanced on Tel Hasel, which was taken in another nocturnal attack, before their advance was stopped by the insurgents that had recently taken 'Base 80' (the former barracks of the 80th Brigade) together with extensive stocks of ammunition. Suleimani spent several days rotating his units before deploying two NDF task forces, reinforced by Iraqis, to push towards Nayrab AB on 10 November. Finding no other way around this stronghold, the IRGC-QF launched another nocturnal

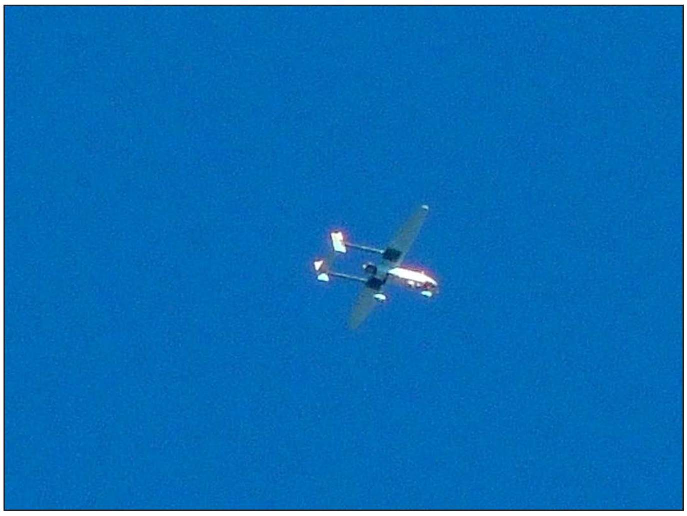

Nubl
Anadan
Hretan
Central Prison
Kindi Hospital
Sheikh Najjar
Old City
Kafr Naha
Khan al-Asal
Nayrab IAP
Tel Hasel
Rayyan
Kweres
Shekh Ahma
as-Safira
Al Jaboul Lake
Khanassir
Insurgent advances July-September 2012
Insurgent advances March-September 2013
Government advance September-November 2013
Government advance December 2013
N
0
10
20 kms

This map of the Battle for Aleppo shows two crucial phases: in late July and through the autumn of 2012, the insurgents (marked in green) swept from the north-west into northern and eastern Aleppo: by mid-2013, they managed to encircle the loyalists in the western part of the city. The IRGC-QF-led counteroffensive – Operation Northern Storm – of autumn 2013, began with the recovery of Khanasir in the south, as-Safira and then Tel Hasel, and re-established the land connection with the surrounded garrison of the largest Syrian city. (Map by George Anderson)



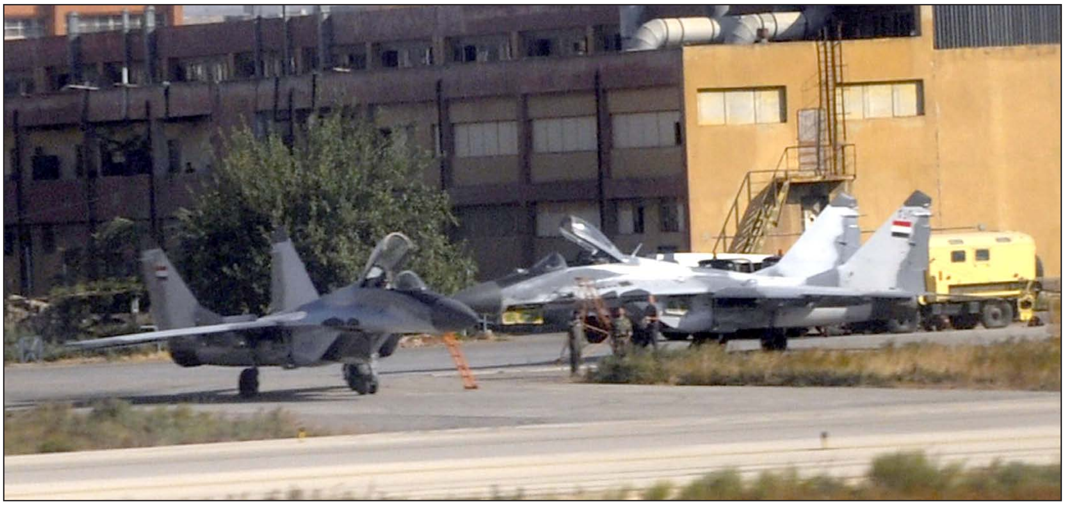
Left, a SyAAF MiG-23MF interceptor armed with Kh-23M radio-command guided air-to-ground missiles, as seen over Aleppo in late 2013, and (right) another, armed with B-8M pods for 80mm unguided rockets, about to attack a target in Eastern Ghouta in November 2013. One or two such aircraft armed with Kh-23Ms flew a handful of crucially important air strikes against the HQs of major insurgent units, causing not only heavy losses, but the collapse of the original insurgency in the Aleppo area. As a result, the original insurgency was easily 'replaced' by quasi-Islamist extremists. (Photos by LensDimashqi & FSyA Release)

A SyAAF MiG-29 armed with B-8M rocket pods over Damascus in October 2013. Once much of air force's MiG-23BN and Su-22 fleets had been worn out due to intensive operations, MiG-29s were pressed into service as fighter-bombers. From October 2013, they were primarily deployed in support of major IRGC-led operations, primarily deploying B-8M pods for unguided rockets and PGMs – including, apparently, Iranian-made laser-homing 250kg bombs, for which target designation was provided by UAVs. (via R.S.)

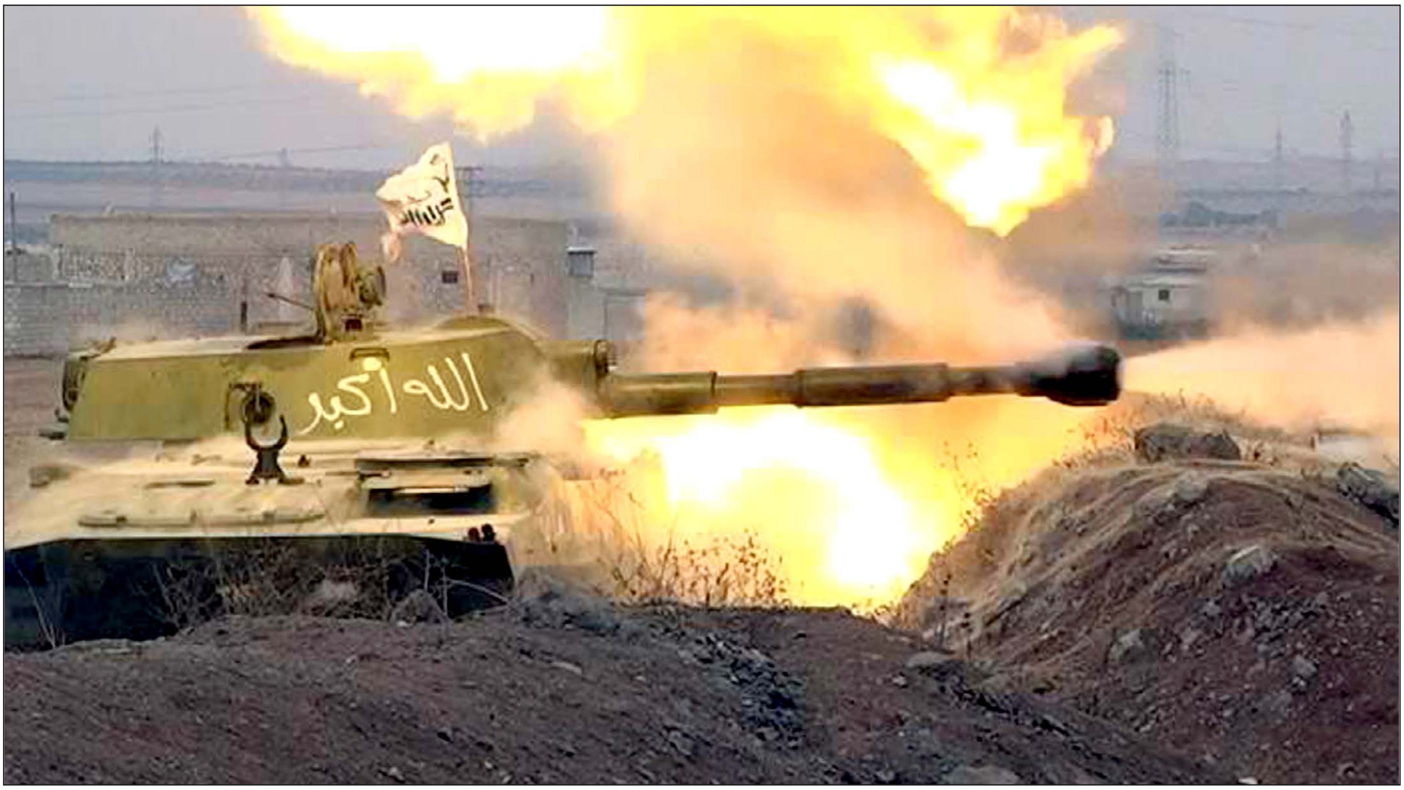


Several types of Iranian-made UAVs were in service with IRGC-QF units deployed to Syria since 2012. This Mohajeer-4 UAV (also known as 'Pahpad') was photographed over southern Damascus in July 2013. (via R.S.)

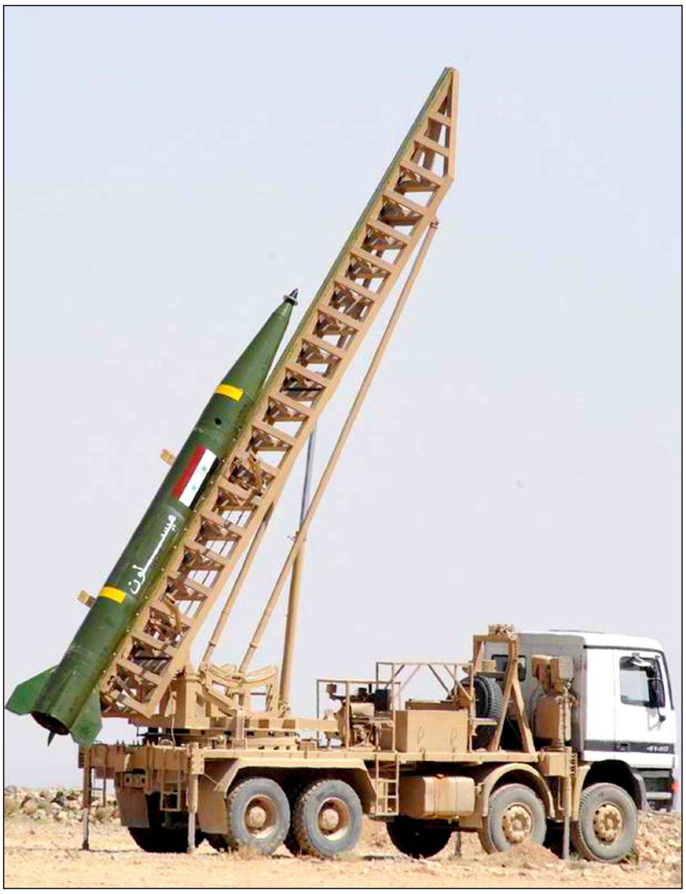
heliborne insertion of special forces, but this failed because the helicopters landed inside a previously unknown minefield north of Base 80, where at least two Mi-8s were destroyed, and up to 24 crewmembers and special forces operatives killed or captured (all survivors were summarily executed by insurgents).[6] The fighting for Base 80 was heavy, as were losses on both sides: the Iraqis even lost one of their brigade commanders. Nevertheless, the insurgent front lines south of Aleppo collapsed under relentless pressure: amid consistent factionalising and infighting between different groups, and due to increasing pressure by ISIS, most native rebels withdrew into central and eastern Aleppo, leaving only the JAN to provide



Two SyAAF MiG-29s seen following an overhaul and upgrade to MiG-29SM standard by The Works at Nayrab IAP in 2012. They did not receive additional fuel cells in the spine behind the cockpit, but now had a weapons system enabling them to deploy R-77 (ASCC/NATO codename 'AA-12 Adder') medium-range air-to-air missiles, and a wide range of PGMs. (Photo by R.S.)



Various insurgent groups active in Aleppo province were reasonably well-equipped with heavy weaponry, including such as this 2S1 Gvozdika self-propelled 122mm howitzer operated by the Harakat ash-Sham Brigade. However, the appearance of ISIS, and under the influence of foreign powers, for much of 2013 they were preoccupied fighting each other instead of the government or Islamist extremists. (Harakat ash-Sham release)



According to sources within the NATO forces deployed to bolster the defences of Turkey, Syrian government forces had fired at least 300 intermediate range ballistic missiles against insurgent-held areas in northern Syria alone during the first half of 2013. This is an Iranian-made Zelzal missile – named Maysalun in Syria – that can carry a 600kg warhead over a range of about 200km. (Syrian Ministry of Defence)

ISIS operated relatively few heavy weapons in northern Syria, including a handful of T-55s and heavy technicals confiscated from different insurgent groups. This truck, photographed by a British Jihadist that fought for the extremists in late 2013, carries a Soviet-made S-60 57mm AA gun. Heavier equipment was actually not necessary because the primary targets of ISIS were lightly-protected insurgent-controlled towns and villages, well away from the frontlines, which they found easy to secure by surprise. (Photo by Abu Layth Briton/ISIS)

resistance in the area between that city and Kweres AB, 40km east of it.

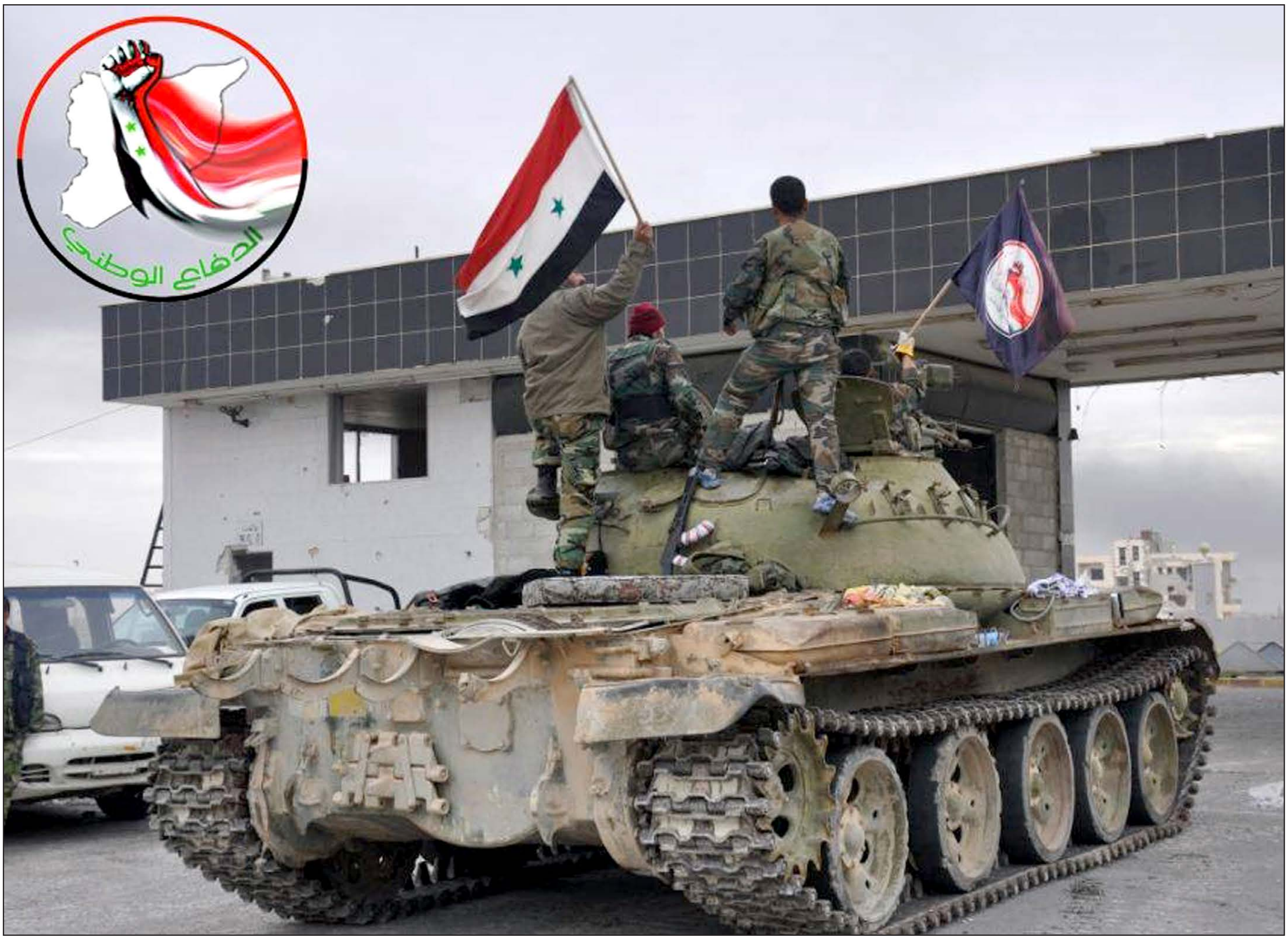
ENDGAME IN DAMASCUS

During the summer and autumn of 2013, the situation of the insurgents in the various pockets that they held in southern Damascus and the surrounding area began to worsen. They were exposed to several attacks with chemical weapons – only the biggest of which, launched on 21 August 2013, caused deaths of hundreds of civilians and an outburst of protests on the international diplomatic scene – and were then subjected to a siege by reinforced government forces, which made it impossible for

The result of a strike by one of dozens of ballistic missiles that hit insurgent-held parts of Aleppo on 19 February 2013. (Aleppo Media Centre)

To the rear of the combined Iranian-Iraqi force that reopened the supply corridor to Aleppo, several pro-government militias followed to secure reconquered areas. This photograph shows members of an SSNP-battalion in southern Aleppo in late 2013. All of their arms, uniforms and equipment are from former army stocks, and they are practically indistinguishable from other native pro-government forces. (SSNP release)

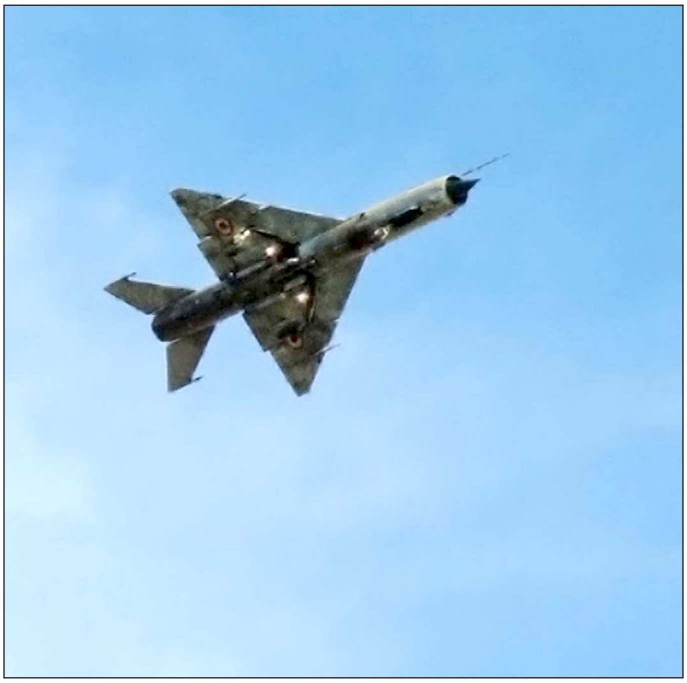
the insurgents to resupply. During mid-October, this prompted significant parts of local SIF, SILF and Army of Islam groups to withdraw from Eastern Ghouta in the direction of the Qalamoun Range. Suleimani reacted by deploying one brigade of Hezbollah – reinforced by elements of the former 18th Division and the 155th Missile Brigade – in pursuit. However, this operation – strongly supported by the SyAAF – was spoiled by insurgent attacks on large military storage facilities in Mahin and Sadad, which contained extensive stocks of ammunition, and a number of stored tanks and artillery pieces. Furthermore, another insurgent group attacked Damascus IAP during the night from 28 to 29 October. Redirecting his forces, Suleimani forced the insurgents to withdraw back into the Qalamoun mountains in the north, and back into their pockets in southern Damascus by 30 October 2013. However, the opportunity to knock out a large concentration of enemies with a single blow passed, and they were to continue causing problems.



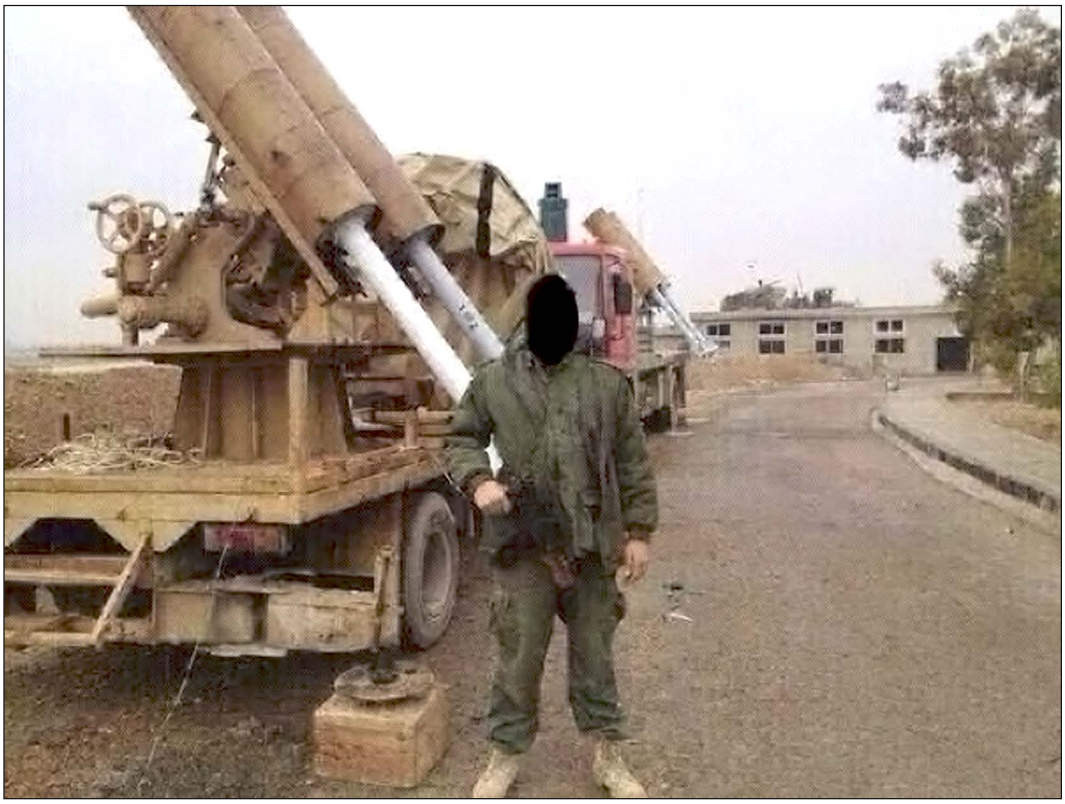
A T-62, operated by one of the militias acting as the 'NDF', at the entrance to the town of Nabk. The town was briefly occupied by the JAN in late November 2013. Making good use of flat and open terrain, the IRGC-QF-led militias skillfuly deployed their heavy weapons to cause significant losses to the insurgents. (NDF release)

Limited by another shortage of fuel (most of which was used for Northern Storm), Suleimani subsequently limited the operation of his forces in Damascus area to tightening the grip around besieged insurgent-held areas. However, he did not miss a chance to further improve the training of these. For example, officers of the IRGC-QF began to train Iraqi and Syrian tank drivers in deploying counter-ATGM measures – foremost through evasion tactics, but also in conjunction with ground observers that would warn them about missiles and call artillery strikes in response. Furthermore, his officers began insisting on air support by MiG-29s equipped with B-8 pods for unguided rockets: the type proved not only capable of reacting to calls for support at shorter notice than other fighter-bombers in service with the SyAAF but also of delivering their ordnance more precisely, while 80mm rockets proved more effective than older S-5s fired from UB-16-57 and UB-32-57 pods.

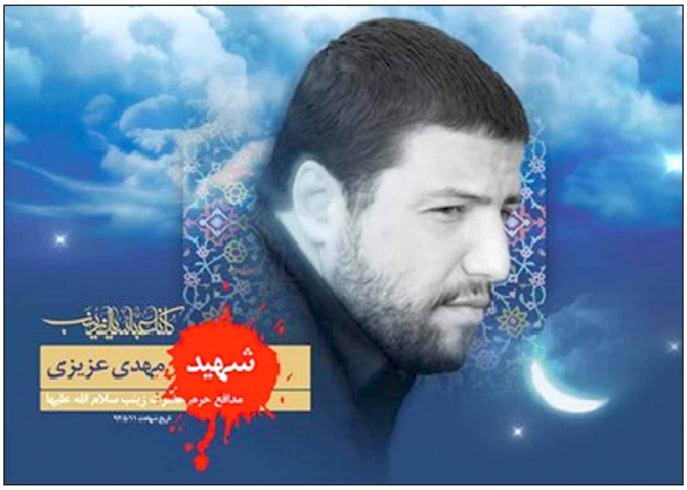
New tactics and armament began to show their effects by mid-December 2013. Like artillery units of the SyAA before, the insurgent artillery proved inflexible and unable to rapidly switch between different targets. Many pieces were knocked out by air strikes, while others fell into disrepair because of poor maintenance and lack of spares. Never particularly well supplied with ATGMs and MANPADs, the insurgents in the Damascus area were soon left with just a few B-10 recoilless guns as their only heavy weapon, but there was a chronic shortage of ammunition even for these. For all practical purposes, they were finished, left only



After flying several hundreds of combat sorties in the Damascus area during early 2013, the SyAAF MiG-21bis-fleet decreased the tempo of its operations for the rest of that year. However, MiG-21s from Hama AB were again seen in operations in significant numbers during December 2013. Notable on this example are two chaff and flare dispensers attached to the lower fuselage. (YoungHamwiLens)



A Hezbollah combatant with a Burkan (or Failaq-2) multiple rocket launcher in Syria in late 2013. (Hezbollah release)


شهید
مهدی عزیزی
مدافع حرم حضرت زینب سلام الله علیها

Except for a few videos released accidentally (usually due to a mistake in Syrian Military Censorship), visual evidence of the IRGC presence in Syria is extremely rare. Nevertheless, families of 'martyrs fallen in the defence of Sayida Zainab Shrine' occasionally commemorate the death of their sons on the internet, as in the case of IRGC combatant Mehdi Azizi, killed in Syria on 2 August 2013. (Iranian internet)

with assault rifles and machine guns for their defence. Even so, they were not ready to give up. On 11 December, the insurgents launched an offensive from Eastern Ghouta, attempting to breach in the direction of the Qalamoun Range. Following a spate of early successes, their advances became bogged down when reaching a number of military bases constructed well before the war in a circle about 30km outside Damascus, or well-protected towns like Adra in the north and Qaysa in the south. After this failure, the majority of the insurgents in isolated pockets of southern Damascus and central Homs were forced to enter ceasefire negotiations with the government, or face a near certain death due to starvation, lack of water and disease, by the end of the year.

CONCLUSIONS

Concurrent with factionalism and infighting between the insurgent groups, and the appearance of extremist Islamists that destroyed most of the activist and insurgent networks in north-eastern and northern Syria, the Iranian military intervention was a major new appearance on the battlefields of the Syrian Civil War of 2013. It came as a sort of strategic surprise for the Syrian insurgents and their supporters abroad who, expecting an imminent fall of Assad's government, gravely underestimated the resolve – and capabilities – of the IRGC. Like in Lebanon and Iraq before, Tehran has once again proven ready to meet the costs – monetary, material, and in terms of human resources – necessary to achieve its aims, resulting in a military operation that became much more than just 'helping a friend in need'. Not obvious at the first glace, and because of passivity and indecisiveness of the West and its Arab allies like Saudi Arabia, as well as because of the malicious intentions of Qatar and Turkey, the Iranian intervention in Syria was only gaining momentum during the late 2013: through early 2014 it began to directly threaten the existence of the Syrian insurgency.

Under then-present circumstances, it was hard to predict in what direction this war might develop. The appearance of ISIS created much chaos and confusion amongst the insurgents in northern Syria in 2012 and 2013. However, a relatively short – yet well organised and executed – counteroffensive by only one part of the insurgent forces launched in January 2014, forced ISIS to withdraw from Aleppo and Idlib provinces. At least temporarily, the future of ISIS even in such distant parts of Syria as Dayr az-Zawr province appeared questionable. Iranian involvement was further intensified in February and March 2014, when the Quds Force supervised a major Hezbollah offensive that dispersed a large insurgent concentration in the Qalamoun Range, forcing many of them to flee over the border to Lebanon. It could be expected that similar operations would follow in Eastern Ghouta, the fall of which would certainly deliver a severe blow for the entire insurgent movement. On the other side, several new – Saudi supported – alliances of moderate insurgents made an appearance, establishing themselves in control of most of Dera'a and Aleppo provinces. Although their operations were repeatedly constrained by US-imposed limitations on the type of arms and equipment the Saudis were permitted to provide, they showed much improved skills in command and control, as well as in the execution of their operations, and a better discipline than ever before.

Obviously, although most Syrians were still fighting on behalf of either the government or the insurgency, the war in Syria was not going to be decided by them, but by foreign powers fighting for their own interests.

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Researching and reporting about an ongoing military conflict is never a pleasant task because – for obvious reasons – many details about military operations are kept secret, and are going to remain that way for a while longer.

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NOTES

CHAPTER 1

1 As is well-known, the British subsequently enthroned Faysal as King of Iraq, and his brother Abdullah I Ibn al-Hussein as Emir of Transjordan (King of Jordan since 1946). It is less well-known that the British then went on to leave Sharif Hussein to his own devices when he came under attack by Abdul-Aziz Ibn al-Saud, the ruler of the neighbouring Nejd region in 1924, who subsequently established the Kingdom of Saudi Arabia. Furthermore, contrary to widespread belief (and the behaviour of the French Mandate authorities) Syria was never a French 'colony'. Finally, it is next to unknown that in 1919 Faysal met Dr Chaim Weizman, the head of the Zionist Commission of Palestine, and reached an agreement about full cooperation in the development of an independent Arab state. This agreement encouraged 'the immigration of Jews into Palestine on large scale' and 'as quickly as possible', but also stressed that, 'Arab peasant and tenant farmers shall be protected in their rights and shall be assisted in forwarding their economic development'. This agreement accepted the much-cited Balfour Declaration and the development of a Jewish home in Palestine – but this was to become a part of one Arab state, ruled 'by the most cordial goodwill and understanding, and to this end Arab and Jewish duly accredited agents' (see text of the 'Agreement between Emir Feisal and Dr. Weizmann', from 3 January 1919). Tragically, as much as they ignored the findings for the King-Crane Commission, various of subsequent leaders preferred to completely ignore this agreement, in turn provoking the Arab-Israeli conflict which – together with all of its negative consequences (including spread of international terrorism and Islamic extremism) – has raged for nearly 90 years.

2 As of 1955, the Chief of Syrian Military Intelligence found that approximately 65 percent of the NCOs belonged to the Alawi sect, see van Dam, *The Struggle for Power in Syria*, pp.26–28.

3 Baer, *The Saudi Connection*, pp.151–155.

CHAPTER 2

1 According to Syrian sources, no fewer than ten Israeli UAVs were shot down by the SyAAF over Syria on average every year between 2001 and 2006, principally while underway along the Syrian-Jordanian and Syrian-Turkish borders, but sometimes as deep as 50 kilometres inside Syrian airspace. The first shoot-down may have occurred in late July 2001, and the last known – which may have seen a MiG-23ML downing an UAV armed with air-to-air missiles – in October 2007. The worst incident may have occurred on 14 September 2001, when – according

to sources within the Syrian diaspora – two IDF/AF F-15s may have shot down two SyAAF MiG-29s off the Syrian coast, after the latter approached an Israeli intelligence gathering aircraft. Such reports are denied by sources with links to British military intelligence, which stressed that no corresponding activity was observed by Royal Air Force radar stations at British bases in Cyprus.

2 According to Syrian sources, TURMS-T-equipped T-72M1S were locally designated the 'T-82'; similarly, T-72AVs were locally designated 'T-74'.

3 Most of the Syrian BM-21 stocks were imported from Egypt, while the first confirmed deployment of BM-27 systems took place in early 2014.

CHAPTER 3

1 'The Sturdy House That Assad Built', *Foreign Affairs*, March 2011

2 Initially, officers from the 65th MB complained to their superiors about the misbehaviour of a number of leading officers, and the torture and execution of civilians, looting and cases of raped women. When the officers reporting such misbehaviour were arrested instead, they began searching for a way out.

3 Amongst the officers that defected was 1st Lieutenant Abdul Razzaq Tlas, nephew of Mustafa Tlass, who left the 65th MB and managed to reach ar-Rastan together with many soldiers from this company. Together with defectors from the Homs area, he was to establish one of the first units of the future 'Free Syrian Army' in mid-June 2011.

4 SANA release, 30 April 2011

5 Presence of a company of Qods operatives was reported in Dera's in April 2011, where they were advising security forces, lending their experience from crushing similar mass protests in Iran in 2009.

6 Syrian media reported the death of at least 370 'members of security forces' by 5 June 2011. Although some of these were actually victims of summary executions by intelligence operatives, snipers and superior officers, several dozens were killed during the fighting for Jisr ash-Shugor.

CHAPTER 4

1 The first large-scale massacres occurred in May 2011, when pro-government militias stabbed or shot at close range at least 108 Sunni residents of Taldou, in the Houleh area of Homs province. Less than two weeks later militias murdered another 100 Sunnis in Qubeir, in Hama province, including 40 women and children.

2 Although – except for SANA releases – no official documentation is available, anecdotes from reporters visiting various military hospitals in Damascus and Homs during this period seem to reinforce conclusions about very heavy losses of government forces. Furthermore, a video from an Alawite wedding posted on YouTube showed Lieutenant General Ali Khouzam explaining to the young men that only three members of a 50-man RGD company remained alive after an attack on Bab Amr (Khouzam was killed just a few days later).

3 As well as killing and injuring dozens of loyalist troops, the insurgents assassinated or captured a significant number of top commanders, including Major General Faraq Shehada, Commander I Corps SyAA.

4 Rajiha was replaced by Lieutenant General Fahd Jassim al-Furayj, former Chief of Staff Armed Forces.

5 Exact numbers of casualties on all sides of this battle remain unknown. The government ceased the practice of reporting its official casualty figures via SANA releases in June 2012, because it became obvious that the nature of the situation had changed fundamentally and it could not maintain its narrative about facing a 'small-scale terrorist conspiracy' anymore. By that time, the Syrian government admitted having suffered more than 2,300 killed, of whom 75 percent were military personnel, and rest the police, intelligence operatives and civil servants, primarily Alawites from Lattakia and Homs provinces.

CHAPTER 5

1 Notable is that the correct translation of the modern-day SyAAF designation from Arabic ends with the word 'Forces', plural, because the SyAAF now includes the former Air Defence Force.

2 Known are the designations of only two operational divisions, the 21st and the 22nd, but it remains unknown for what part of Syrian airspace each was responsible, or whether they remain current.

3 Data about the number of Mi-8/17s and Mi-25s in service with the SyAAF according to Brigadier General Mohammad al-Zogby and Brigadier General Saed Shawamra, who defected from Taftanaz AB in June 2012.

4 This is the major reason for the use of plural 'Forces' in the official SyAAF title.

5 The division in question was numbered as the 24th, but it is unknown whether this designation remains current.

6 Syria originally purchased 20 Su-24MKs, starting in 1987. One example crashed in the 1990s, but two – one Su-24MK and one Su-24MR electronic-reconnaissance fighter – were donated by Libya in exchange for maintenance support of the former Libyan Arab Air Force in spite of an international arms embargo. Reportedly, up to 10 SyAAF Su-24s were still in Russia as of autumn 2012, but the Syrians and Russians subsequently, 'found the ways to return them home'.

7 Amongst leading defectors were Brigadier General Mohammed Fares, the first Syrian cosmonaut, and Deputy Director AFI for Dayr az-Zawr, Brig General Mustafa Nassr.

8 This précis of vehicles lost during the breakout from Bab al-Hawa is provided to illustrate the colourful composition of Syrian military units at this time, caused by frequent reshuffling of company-sized detachments from one unit to another in order to prevent defections.

9 Although many of the SyAAF personnel remained loyal to the government, and despite stringent control by the AFI and other intelligence agencies, there were a significant number of sympathisers that maintained contract with the insurgency and sometimes provided valuable intelligence. It was in this way that the orders from the Ba'ath Party HQ were revealed to the public, but also that – in combination with the monitoring and reporting of air force operations – quite detailed statistics about number of combat sorties flown by the SyAAF, as presented here, became available. Furthermore, it is notable that while obeying their orders, some pilots were deliberately missing their targets, or resetting the fuses of their weapons so that these failed to detonate.

10 On 15 October, the HQ FSyA released a report according to which the insurgents had shot down no fewer than 71 military aircraft – including 27 MiGs and Sukhois and 44 helicopters – of which 57 may have been documented by photographs and videos. However, evidence published by this and other insurgent sources by the end of that month confirmed only the downing of 14 jets and 16 helicopters. Arguably, up to 20 additional jets were

destroyed on the ground, but these primarily included MiG-21s and MiG-23s that were withdrawn from service years earlier and were used only as decoys.

11 Although known as 'camp', Yarmuk was officially established in 1957 to accommodate an informal and largely tented area for Palestinians that fled after Israel's foundation in 1948. It is a built-up, urban area, with apartment blocks, shops, schools, and hospitals.

CHAPTER 6

1 Although the THK had a total of 18 RF-4s upgraded to ETM standard (17 were in service with 113th and 173rd Squadrons as of 22 June 2012), this was one of only two examples capable of carrying the KS-146 LOROP reconnaissance pod (the other one is 77-0316). With the THK conducting ELINT/SIGINT operations with other types in service, its RF-4ETMs are equipped only with the AN/ALQ-178/(V)3 radar-warning-receivers. The bodies of the two crewmembers were recovered in early July 2012.

2 The Turkish Air Force 'avenged' the loss of its RF-4 on 16 September 2013, when two Lockheed F-16C interceptors from 181 Filo (No. 181 Squadron) intercepted a SyAAF Mi-17 helicopter underway nearly 10 kilometres inside Turkish airspace, over Yayladag Gendarmerie Post in Hatay Province, and shot it down after it failed to react to repeated warnings, around 14.27hrs local time. At least two crewmembers managed to jump out of the burning helicopter before it hit the ground. After landing inside Turkey, they managed to run over the border to Syria but were captured by extremist Islamists of ISIS and summarily executed shortly after.

3 Suleimani would be killed in a US drone strike in January 2020.

4 Overall, such 'mishaps' may have resulted in Hezbollah suffering at least 28 KIA (in addition to 8 officers from the Qods Force). According to Hezbollah sources (interviews provided on condition of anonymity, January 2014), even the problem with the SyAAF was only solved through, '...deployment of pilots that were no[t] Syrians.'

5 While Iranian sources largely refused to comment in this regard, the above-mentioned Hezbollah source, and several insurgent sources indicate that the IRGC may have deployed several of their own Mi-17 helicopters to Syria, and that its personnel were flying some of the SyAAF MiG-23s and MiG-29s. The IRGCASF does not operate these types in Iran but has pilots trained on fast jets, such as Sukhoi Su-25s. Furthermore, considering Turkish military reports about a 'surge' in SyAAF training activities (reportedly, flying up to 50 training sorties a day during the second half of 2013), and a number of videos that appeared on YouTube during October 2013 showing unarmed L-39s, MiG-23UBs and MiG-29UBs while returning to various bases), it is perfectly possible that the IRGCASF requalified a number of its pilots to fly Syrian MiG-23s and MiG-29s.

6 Information according to Iranian sources, provided on condition of anonymity. The same indicated that the helicopters in question were not operated by the SyAAF but differ in regards of the number of IRGC operatives killed, some citing 10 and others 24. Videos provided by insurgent sources have shown three Mi-8s and Mi-17s as destroyed on or around 15–16 November 2013, two of these in the Aleppo area.

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Tom Cooper is an Austrian aerial warfare analyst and historian. Following a career in the worldwide transportation business – during which he established a network of contacts in the Middle East and Africa – he focused on research and analysis of small, little-known air forces and conflicts, about which he has collected extensive archives. This has resulted in specialisation on the operational history of Middle Eastern air forces such as of those of Egypt, Iran, Iraq, Syria, Yemen, and about 20 African and Asian air forces, including those of Algeria, Angola and Libya. In addition to authoring and co-authoring about 60 books – including about four dozen titles for Helion's @War series – he has published well over 1,000 related articles, and appeared in more than a dozen international TV documentaries. Since 2017, Cooper has worked as editor of the five @War book-series.